Site	Date	Temp ©	Specific Conductance	D O
Lava Beds National Monument (LABE)				
Heppe Ice Cave	10/24/2005	0.28	178	10
		0.23	178	9.89
		0.24	178	9.95
Upper Ice	10/25/2005	0.29	61	5.61
		0.24	6	5.67
		0.26	59	6.21
Merrill	10/25/2005	0.48	132	11.57
		0.35	130	12.11
		0.2	132	12.36
Duffys Well	10/27/2005	0.01	643	3.33
		0.12	91	7.2
		0.09	58	10.45

pH	Coordinate	fecal sample collected	water sample collected	Nitrate/Cl sampl
7.76	620958	na	yes	na
7.77	4617243	na	yes	na
7.76	na	yes	na	
na	618800	na	yes	na
na	4617193	na	yes	na
na	na	yes	na	
na	620689	na	yes	na
na	4620677	na	yes	na
na	na	yes	na	
na	622997	na	yes	na
na	4617659	na	yes	na
na	na	yes	na	

e collected

ID	Cl mg/L	NO3 mg/L	SO4 mg/L	Na mg/L	NH4 mg/L	K mg/L
Duffy's Well 5/18/05-1	0.23	2.04	10.97	0.64	0.05	0.25
Duffy's Well 5/18/05-2	0.09E	0.61	0.98	0.12	0.05	0.19
Duffy's Well 5/18/05-3	0.06E	0.39	0.33	0.14	0.01	0.18
Merrill Ice Cave 5/18/05-1	0.72	4.89	0.87	1.51	0.03	0.50
Merrill Ice Cave 5/18/05-2	0.54	4.20	0.71	1.47	0.03	0.46
Merrill Ice Cave 5/18/05-3	0.66	4.19	0.71	1.24	0.08	0.38
Skull 5/19/05-1	2.82	16.26	2.91	8.92	<0.02	1.25
Skull 5/19/05-2	1.39	11.36	1.54	5.28	0.06	0.71
Skull 5/19/05-3	1.19	7.16	1.13	3.90	<0.02	0.65
Caldwell 5/20/05-1	0.50	1.67	1.42	1.15	0.05	0.75
Caldwell 5/20/05-2	0.46	1.93	1.69	1.03	0.06	0.64
Caldwell 5/20/05-3	0.72	3.08	1.25	1.32	0.12	0.68
Crystal top level 5/20/05-1	0.06E	0.37	0.14	0.10	0.01	0.07
Crystal top level 5/20/05-2	0.09E	0.77	0.30	0.10	<0.02	0.06
Crystal Blue Glacier 5/20/05-1	0.10E	0.26	0.49	0.07	<0.02	0.09
Crystal Blue Glacier 5/20/05-2	0.07E	0.18	0.41	0.13	<0.02	0.02

E =estimated

Mg mg/L	Ca mg/L	pH	Alk mg/L as CaCO3	bicarb mg/L as HCO3	SC uS/cm	ion bal %
0.75	4.50	6.44	3	4	12	-1
0.16	0.84	6.44	3	4	12	-15
0.12	0.70	6.44	3	4	12	-15
0.84	1.72	6.96	5	6	20	4
0.72	1.49	6.96	5	6	20	3
0.65	1.25	6.96	5	6	20	-4
2.99	6.72	7.86	28	34	87	2
1.81	4.81	7.86	28	34	87	-12
1.22	4.65	7.86	28	34	87	-17
1.14	5.90	7.92	16	20	43	8
0.69	2.05	7.92	16	20	43	-28
0.66	3.23	7.92	16	20	43	-17
0.07	0.99	6.63	4	5	56	-19
0.05	0.60	6.63	4	5	56	-43
0.04	0.51	6.49	3	4	2	-38
0.11	0.56	6.49	3	4	2	-26

Report To: US GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521
Attention: CHRIS CURRENS
Project: NPS-BASELINE WATER QUALITY INVENTORY LAVA BEDS

General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL
MERRILL #1 Water (5050957-01) Sampled:05/17/05 09:00 Received:05/24/05 16:44					
pH	pH Units	**7.76**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**44**		2	5
Bicarbonate	"	**54**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**155**		2	10
MERRILL #2 Water (5050957-02) Sampled:05/17/05 09:00 Received:05/24/05 16:44					
pH	pH Units	**7.78**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**45**		2	5
Bicarbonate	"	**54**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**155**		2	10
MERRILL #3 Water (5050957-03) Sampled:05/17/05 09:00 Received:05/24/05 16:44					
pH	pH Units	**7.79**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**46**		2	5
Bicarbonate	"	**56**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**157**		2	10
MERRILL #1-3 (ICE) Water (5050957-04) Sampled:05/17/05 09:00 Received:05/24/05 16:44					
pH	pH Units	**6.96**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**5**		2	5
Bicarbonate	"	**6**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**20**		2	10
INCLINE CAVE #1 Water (5050957-05) Sampled:05/17/05 11:00 Received:05/24/05 16:44					
pH	pH Units	**5.26**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	ND		2	5
Bicarbonate	"	ND		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	ND		2	10
INCLINE CAVE #2-3 (ICE) Water (5050957-06) Sampled:05/17/05 11:00 Received:05/24/05 16:44					
pH	pH Units	**8.83**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**26**		2	5
Bicarbonate	"	**27**		2	5
Carbonate	"	**2**	J	2	5
Specific Conductance	umhos/cm	**46**		2	10
DUFFY #1 Water (5050957-07) Sampled:05/17/05 14:00 Received:05/24/05 16:44					
pH	pH Units	**6.88**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**21**		2	5
Bicarbonate	"	**26**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**130**		2	10
DUFFY #2 Water (5050957-08) Sampled:05/17/05 14:00 Received:05/24/05 16:44					
pH	pH Units	**6.71**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**5**		2	5
Bicarbonate	"	**6**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**97**		2	10
DUFFY #3 Water (5050957-09) Sampled:05/17/05 14:00 Received:05/24/05 16:44					
pH	pH Units	**6.67**	I-03	0.01	0.01

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Project: NPS-BASELINE WATER QUALITY INVENTORY LAVA BEDS

General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL
DUFFY #3 Water (5050957-09) Sampled:05/17/05 14:00 Received:05/24/05 16:44					
Alkalinity as CaCO3	mg/l	**7**		2	5
Bicarbonate	"	**9**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**92**		2	10
DUFFY #1-3 (ICE) Water (5050957-10) Sampled:05/17/05 14:00 Received:05/24/05 16:44					
pH	pH Units	**6.44**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**3**	J	2	5
Bicarbonate	"	**4**	J	2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**12**		2	10
BIG ICE CAVE #1 (ICE) Water (5050957-11) Sampled:05/17/05 17:00 Received:05/24/05 16:44					
pH	pH Units	**7.46**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**13**		2	5
Bicarbonate	"	**16**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**47**		2	10
BIG ICE CAVE #2-3 (ICE) Water (5050957-12) Sampled:05/17/05 17:00 Received:05/24/05 16:44					
pH	pH Units	**7.57**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**21**		2	5
Bicarbonate	"	**26**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**84**		2	10
FROZEN RIVER #1 (ICE) Water (5050957-13) Sampled:05/18/05 09:00 Received:05/24/05 16:44					
pH	pH Units	**6.82**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**4**	J	2	5
Bicarbonate	"	**5**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**3**	J	2	10
FROZEN RIVER #2 (ICE) Water (5050957-14) Sampled:05/18/05 09:00 Received:05/24/05 16:44					
pH	pH Units	**6.51**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**2**	J	2	5
Bicarbonate	"	**2**	J	2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	ND		2	10
FROZEN RIVER #3 (ICE) Water (5050957-15) Sampled:05/18/05 09:00 Received:05/24/05 16:44					
pH	pH Units	**6.76**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**7**		2	5
Bicarbonate	"	**6**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**6**	J	2	10
SKULL CAVE #1-3 (ICE) Water (5050957-16) Sampled:05/18/05 11:00 Received:05/24/05 16:44					
pH	pH Units	**7.86**	I-03	0.01	0.01

Alkalinity as CaCO3	mg/l	**28**		2		5
Bicarbonate	"	**34**		2		5
Carbonate	"	ND		2		5
Specific Conductance	umhos/cm	**87**		2		10
SKULL #4 A-B Water (5050957-17) Sampled:05/18/05 11:00 Received:05/24/05 16:44						
pH	pH Units	**7.41**	I-03		0.01	0.01
Alkalinity as CaCO3	mg/l	**12**		2		5

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General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL
SKULL #4 A-B Water (5050957-17) Sampled:05/18/05 11:00 Received:05/24/05 16:44					
Bicarbonate	"	**15**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**40**		2	10
SKULL #5 Water (5050957-18) Sampled:05/18/05 11:00 Received:05/24/05 16:44					
pH	pH Units	**7.57**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**18**		2	5
Bicarbonate	"	**22**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**65**		2	10
SKULL #6 Water (5050957-19) Sampled:05/18/05 11:00 Received:05/24/05 16:44					
pH	pH Units	**7.76**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**24**		2	5
Bicarbonate	"	**29**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**76**		2	10
HEPPE #1 Water (5050957-20) Sampled:05/18/05 14:00 Received:05/24/05 16:44					
pH	pH Units	**7.23**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**29**		2	5
Bicarbonate	"	**35**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**132**		2	10
HEPPE #2 Water (5050957-21) Sampled:05/18/05 14:00 Received:05/24/05 16:44					
pH	pH Units	**7.26**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**29**		2	5
Bicarbonate	"	**35**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**125**		2	10
HEPPE #3 Water (5050957-22) Sampled:05/18/05 14:00 Received:05/24/05 16:44					
pH	pH Units	**7.38**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**28**		2	5
Bicarbonate	"	**34**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**121**		2	10
UPPER ICE CAVE #1 (ICE) Water (5050957-23) Sampled:05/18/05 16:00 Received:05/24/05 16:44					
pH	pH Units	**6.88**	I-03	0.01	0.01

Alkalinity as CaCO3	mg/l	**22**		2		5
Bicarbonate	"	**27**		2		5
Carbonate	"	ND		2		5
Specific Conductance	umhos/cm	**84**		2		10
UPPER ICE CAVE #2 (ICE) Water (5050957-24) Sampled:05/18/05 16:00 Received:05/24/05 16:44						
pH	pH Units	**6.39**	I-03		0.01	0.01
Alkalinity as CaCO3	mg/l	**10**		2		5
Bicarbonate	"	**12**		2		5
Carbonate	"	ND		2		5
Specific Conductance	umhos/cm	**66**		2		10
UPPER ICE CAVE #3 (ICE) Water (5050957-25) Sampled:05/18/05 16:00 Received:05/24/05 16:44						
pH	pH Units	**6.57**	I-03		0.01	0.01
Alkalinity as CaCO3	mg/l	**10**		2		5
Bicarbonate	"	**12**		2		5

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General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL
UPPER ICE CAVE #3 (ICE) Water (5050957-25) Sampled:05/18/05 16:00 Received:05/24/05 16:44					
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**69**		2	10
CALDWELL #4 (FLOOR) Water (5050957-26) Sampled:05/18/05 18:00 Received:05/24/05 16:44					
pH	pH Units	**6.77**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**8**		2	5
Bicarbonate	"	**10**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**19**		2	10
CALDWELL #5 (FLOOR) Water (5050957-27) Sampled:05/18/05 18:00 Received:05/24/05 16:44					
pH	pH Units	**6.62**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**5**		2	5
Bicarbonate	"	**6**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**16**		2	10
CALDWELL #6 (FLOOR) Water (5050957-28) Sampled:05/18/05 18:00 Received:05/24/05 16:44					
pH	pH Units	**6.39**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**4**	J	2	5
Bicarbonate	"	**5**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**12**		2	10
COX #1 Water (5050957-29) Sampled:05/20/05 09:00 Received:05/24/05 16:44					
pH	pH Units	**6.50**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**5**		2	5
Bicarbonate	"	**6**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**14**		2	10
COX #2 Water (5050957-30) Sampled:05/20/05 09:00 Received:05/24/05 16:44					
pH	pH Units	**6.49**	I-03	0.01	0.01

Alkalinity as CaCO3	mg/l	**5**		2	5
Bicarbonate	"	**5**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**12**		2	10
COX #3 Water (5050957-31) Sampled:05/20/05 09:00 Received:05/24/05 16:44					
pH	pH Units	**6.46**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**4**	J	2	5
Bicarbonate	"	**5**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**14**		2	10
BIG PAINTED CAVE #1 Water (5050957-32) Sampled:05/19/05 11:00 Received:05/24/05 16:44					
pH	pH Units	**6.81**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**5**		2	5
Bicarbonate	"	**5**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**14**		2	10
BIG PAINTED CAVE #2 Water (5050957-33) Sampled:05/19/05 11:00 Received:05/24/05 16:44					
pH	pH Units	**7.93**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**11**		2	5
Bicarbonate	"	**13**		2	5
Carbonate	"	ND		2	5

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General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL
BIG PAINTED CAVE #2 Water (5050957-33) Sampled:05/19/05 11:00 Received:05/24/05 16:44					
Specific Conductance	umhos/cm	**18**		2	10
BIG PAINTED CAVE #3 Water (5050957-34) Sampled:05/19/05 11:00 Received:05/24/05 16:44					
pH	pH Units	**9.68**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**31**		2	5
Bicarbonate	"	**13**		2	5
Carbonate	"	**12**		2	5
Specific Conductance	umhos/cm	**60**		2	10
CRYSTAL CAVE-TOP LEVEL (ICE) #1-2 Water (5050957-35) Sampled:05/20/05 14:00 Received:05/24/05 16:4					
pH	pH Units	**6.63**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**4**	J	2	5
Bicarbonate	"	**5**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**56**		2	10
CRYSTAL CAVE #3-4 BLUE GLACIER (ICE) Water (5050957-36) Sampled:05/20/05 14:00 Received:05/24/05 1					
pH	pH Units	**6.49**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**3**	J	2	5
Bicarbonate	"	**4**	J	2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**2**	J	2	10
CRYSTAL CAVE #5 ICE RED (ICE) Water (5050957-37) Sampled:05/20/05 14:00 Received:05/24/05 16:44					
pH	pH Units	**7.03**	I-03	0.01	0.01

Alkalinity as CaCO3	mg/l	**11**		2	5
Bicarbonate	"	**13**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**31**		2	10
CRYSTAL CAVE #6 ICE RED (ICE) Water (5050957-38) Sampled:05/20/05 14:00 Received:05/24/05 16:44					
pH	pH Units	**7.16**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**9**		2	5
Bicarbonate	"	**11**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**30**		2	10
CALDWELL #1-3 (ICE) Water (5050957-39) Sampled:05/18/05 18:00 Received:05/24/05 16:44					
pH	pH Units	**7.92**	I-03	0.01	0.01
Alkalinity as CaCO3	mg/l	**16**		2	5
Bicarbonate	"	**20**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**43**		2	10

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Quality Control Data

Analyte	Result	RL	Units	Spike Level	Source Result	%REC
General Chemistry						
Batch B5E0594 - General Prep - GC						
LCS						
pH	7.05		pH Units	7.00		101
Duplicate **Source: 5050941-01**						
pH	7.34	0.01	pH Units		7.30	
Duplicate **Source: 5050957-10**						
pH	6.43	0.01	pH Units		6.44	
Batch B5E0604 - General Prep - GC						
LCS						

pH		7.03		pH Units	7.00		100
Duplicate	**Source: 5050957-20**						
pH		7.24	0.01	pH Units		7.23	
Duplicate	**Source: 5050957-30**						
pH		6.57	0.01			6.49	
Batch B5E0646 - General Prep - GC							
Blank							
Specific Conductance		ND	10	umhos/cm			
LCS							
Specific Conductance		103		umhos/cm	100		103
Duplicate	**Source: 5050941-01**						
Specific Conductance		776	10	umhos/cm		772	
Duplicate	**Source: 5050957-06**						
Specific Conductance		46.0	10	umhos/cm		46	
Batch B5E0647 - General Prep - GC							
Blank							
Specific Conductance		ND	10	umhos/cm			
LCS							
Specific Conductance		103		umhos/cm	100		103
Duplicate	**Source: 5050957-16**						
Specific Conductance		87.0	10	umhos/cm		87	
Duplicate	**Source: 5050957-26**						
Specific Conductance		19.0	10	umhos/cm		19	
Batch B5E0649 - General Prep - GC							
Blank							
Specific Conductance		ND	10	umhos/cm			
LCS							
Specific Conductance		103		umhos/cm	100		103

Approved By

Basic Laboratory, Inc.

California D.O.H.S. Cert #1677

Report To: US GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS-BASELINE WATER QUALITY INVENTORY LAVA BEDS

Quality Control Data

Analyte	Result	RL	Units	Spike Level	Source Result	%REC

General Chemistry

Batch B5E0649 - General Prep - GC							
Duplicate	**Source: 5050957-36**						
Specific Conductance		2.00	10	umhos/cm		2	

Batch B5E0661 - General Prep - GC							
Blank							
Alkalinity as CaCO3		ND	5	mg/l			
Bicarbonate		ND	5	mg/l			
Carbonate		ND	5	mg/l			
LCS							
Alkalinity as CaCO3		0.05		mg/l	0.0500		100
Duplicate	**Source: 5050957-01**						
Alkalinity as CaCO3		45.0	5	mg/l		44	
Duplicate	**Source: 5050957-12**						
Alkalinity as CaCO3		22.0	5	mg/l		21	
Batch B5E0662 - General Prep - GC							
Blank							
Alkalinity as CaCO3		ND	5	mg/l			
Bicarbonate		ND	5	mg/l			
Carbonate		ND	5	mg/l			
LCS							
Alkalinity as CaCO3		0.05		mg/l	0.0500		100
Duplicate	**Source: 5050957-21**						
Alkalinity as CaCO3		29.0	5	mg/l		29	
Duplicate	**Source: 5050957-31**						
Alkalinity as CaCO3		4.0	5	mg/l		4	

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Notes and Definitions

J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag). The J flag is equivalent tc
I-03	Sample was received past the EPA recommended holding time.
DET	Analyte DETECTED

ND	Analyte NOT DETECTED at or above the detection limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
<	Less than reporting limit
≤	Less than or equal to reporting limit
>	Greater than reporting limit
≥	Greater than or equal to reporting limit
MDL	Method Detection Limit
RL/ML	Minimum Level of Quantitation
MCL/AL	Maxium Contaminant Level/Action Level
mg/kg	Results reported as wet weight
TTLC	Total Threshold Limit Concentration
STLC	Soluble Threshold Limit Concentration
TCLP	Toxicity Characteristic Leachate Procedure

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Lab No: 5050957
Reported: 06/07/05
Phone: (707) 825-5189
P.O. #

Method	Analyzed	Prepared	Batch
SM 4500H+	05/25/05	05/25/05	B5E0594
SM 2320B	05/27/05	05/27/05	B5E0661
"	"	"	"
"	"	"	"
SM 2510B	05/26/05	05/26/05	B5E0646
SM 4500H+	05/25/05	05/25/05	B5E0594
SM 2320B	05/27/05	05/27/05	B5E0661
"	"	"	"
"	"	"	"
SM 2510B	05/26/05	05/26/05	B5E0646
SM 4500H+	05/25/05	05/25/05	B5E0594
SM 2320B	05/27/05	05/27/05	B5E0661
"	"	"	"
"	"	"	"
SM 2510B	05/26/05	05/26/05	B5E0646
SM 4500H+	05/25/05	05/25/05	B5E0594
SM 2320B	05/27/05	05/27/05	B5E0661
"	"	"	"
"	"	"	"
SM 2510B	05/26/05	05/26/05	B5E0646
SM 4500H+	05/25/05	05/25/05	B5E0594
SM 2320B	05/27/05	05/27/05	B5E0661
"	"	"	"
"	"	"	"
SM 2510B	05/26/05	05/26/05	B5E0646
SM 4500H+	05/25/05	05/25/05	B5E0594
SM 2320B	05/27/05	05/27/05	B5E0661
"	"	"	"
"	"	"	"
SM 2510B	05/26/05	05/26/05	B5E0646
SM 4500H+	05/25/05	05/25/05	B5E0594
SM 2320B	05/27/05	05/27/05	B5E0661
"	"	"	"
"	"	"	"
SM 2510B	05/26/05	05/26/05	B5E0646
SM 4500H+	05/25/05	05/25/05	B5E0594
SM 2320B	05/27/05	05/27/05	B5E0661
"	"	"	"
"	"	"	"
SM 2510B	05/26/05	05/26/05	B5E0646
SM 4500H+	05/25/05	05/25/05	B5E0594

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Method	Analyzed	Prepared	Batch	
SM 2320B	05/27/05	05/27/05	B5E0661	
"	"	"	"	
"	"	"	"	
SM 2510B	05/26/05	05/26/05	B5E0646	
SM 4500H+		05/25/05	05/25/05	B5E0594
SM 2320B		05/27/05	05/27/05	B5E0661
"		"	"	"
"	"	"	"	
SM 2510B	05/26/05	05/26/05	B5E0646	
SM 4500H+		05/25/05	05/25/05	B5E0594
SM 2320B	05/27/05	05/27/05	B5E0661	
"	"	"	"	
"	"	"	"	
SM 2510B	05/26/05	05/26/05	B5E0646	
SM 4500H+		05/25/05	05/25/05	B5E0594
SM 2320B	05/27/05	05/27/05	B5E0661	
"	"	"	"	
"	"	"	"	
SM 2510B	05/26/05	05/26/05	B5E0646	
SM 4500H+		05/25/05	05/25/05	B5E0594
SM 2320B		05/27/05	05/27/05	B5E0661
"	"	"	"	
"	"	"	"	
SM 2510B		05/26/05	05/26/05	B5E0646
SM 4500H+		05/25/05	05/25/05	B5E0594
SM 2320B		05/27/05	05/27/05	B5E0661
"		"	"	"
"	"	"	"	
SM 2510B	05/26/05	05/26/05	B5E0646	
SM 4500H+		05/25/05	05/25/05	B5E0594
SM 2320B	05/27/05	05/27/05	B5E0661	
"	"	"	"	
"	"	"	"	
SM 2510B		05/26/05	05/26/05	B5E0646
SM 4500H+		05/25/05	05/25/05	B5E0594

SM 2320B	05/27/05	05/27/05	B5E0661
"	"	"	"
"	"	"	"
SM 2510B	05/26/05	05/26/05	B5E0647
SM 4500H+		05/25/05	05/25/05 B5E0594
SM 2320B	05/27/05	05/27/05	B5E0661

Lab No: 5050957
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Method	Analyzed	Prepared	Batch	
"	"	05/27/05	"	
"	"	"	"	
SM 2510B	05/26/05	05/26/05	B5E0647	
SM 4500H+		05/25/05	05/25/05	B5E0594
SM 2320B	05/27/05	05/27/05	B5E0661	
"	"	"	"	
"	"	"	"	
SM 2510B	05/26/05	05/26/05	B5E0647	
SM 4500H+		05/25/05	05/25/05	B5E0594
SM 2320B	05/27/05	05/27/05	B5E0661	
"	"	"	"	
"	"	"	"	
SM 2510B	05/26/05	05/26/05	B5E0647	
SM 4500H+		05/25/05	05/25/05	B5E0604
SM 2320B	05/27/05	05/27/05	B5E0661	
"	"	"	"	
"	"	"	"	
SM 2510B	05/26/05	05/26/05	B5E0647	
SM 4500H+		05/25/05	05/25/05	B5E0604
SM 2320B	05/27/05	05/27/05	B5E0662	
"	"	"	"	
"	"	"	"	
SM 2510B	05/26/05	05/26/05	B5E0647	
SM 4500H+		05/25/05	05/25/05	B5E0604
SM 2320B	05/27/05	05/27/05	B5E0662	
"	"	"	"	
"	"	"	"	
SM 2510B	05/26/05	05/26/05	B5E0647	
SM 4500H+		05/25/05	05/25/05	B5E0604

SM 2320B	05/27/05	05/27/05	B5E0662
"	"	"	"
"	"	"	"
SM 2510B	05/26/05	05/26/05	B5E0647
SM 4500H+		05/25/05	05/25/05 B5E0604
SM 2320B	05/27/05	05/27/05	B5E0662
"	"	"	"
"	"	"	"
SM 2510B	05/26/05	05/26/05	B5E0647
SM 4500H+		05/25/05	05/25/05 B5E0604
SM 2320B	05/27/05	05/27/05	B5E0662
"	"	"	"

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Method	Analyzed	Prepared	Batch
"	"	05/27/05	"
SM 2510B	05/26/05	05/26/05	B5E0647
SM 4500H+		05/25/05	05/25/05 B5E0604
SM 2320B	05/27/05	05/27/05	B5E0662
"	"	"	"
"	"	"	"
SM 2510B	05/26/05	05/26/05	B5E0647
SM 4500H+		05/25/05	05/25/05 B5E0604
SM 2320B	05/27/05	05/27/05	B5E0662
"	"	"	"
"	"	"	"
SM 2510B	05/26/05	05/26/05	B5E0647
SM 4500H+		05/25/05	05/25/05 B5E0604
SM 2320B		05/27/05	05/27/05 B5E0662
"	"	"	"
"	"	"	"
SM 2510B	05/26/05	05/26/05	B5E0647
SM 4500H+		05/25/05	05/25/05 B5E0604
SM 2320B	05/27/05	05/27/05	B5E0662
"	"	"	"
"	"	"	"
SM 2510B	05/26/05	05/26/05	B5E0647
SM 4500H+		05/25/05	05/25/05 B5E0604

SM 2320B	05/27/05	05/27/05	B5E0662
"	"	"	"
"	"	"	"
SM 2510B	05/26/05	05/26/05	B5E0647
SM 4500H+		05/25/05	05/25/05 B5E0604
SM 2320B		05/27/05	05/27/05 B5E0662
"	"	"	"
"	"	"	"
SM 2510B	05/26/05	05/26/05	B5E0647
SM 4500H+		05/25/05	05/25/05 B5E0604
SM 2320B	05/27/05	05/27/05	B5E0662
"	"	"	"
"	"	"	"
SM 2510B	05/26/05	05/26/05	B5E0647
SM 4500H+		05/25/05	05/25/05 B5E0604
SM 2320B	05/27/05	05/27/05	B5E0662
"	"	"	"
"	"	"	"

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Method	Analyzed	Prepared	Batch	
SM 2510B	05/26/05	05/26/05	B5E0647	
SM 4500H+		05/25/05	05/25/05	B5E0604
SM 2320B	05/27/05	05/27/05	B5E0662	
"	"	"	"	
"	"	"	"	
SM 2510B	05/26/05	05/26/05	B5E0647	
I4				
SM 4500H+		05/25/05	05/25/05	B5E0604
SM 2320B		05/27/05	05/27/05	B5E0662
"	"	"	"	
"	"	"	"	
SM 2510B	05/26/05	05/26/05	B5E0647	
16:44				
SM 4500H+		05/25/05	05/25/05	B5E0604
SM 2320B		05/27/05	05/27/05	B5E0662
"		"	"	"
"	"	"	"	
SM 2510B		05/26/05	05/26/05	B5E0649
SM 4500H+		05/25/05	05/25/05	B5E0604

SM 2320B	05/27/05	05/27/05	B5E0662
"	"	"	"
"	"	"	"
SM 2510B	05/26/05	05/26/05	B5E0649
SM 4500H+		05/25/05	05/25/05 B5E0604
SM 2320B	05/27/05	05/27/05	B5E0662
"	"	"	"
"	"	"	"
SM 2510B	05/26/05	05/26/05	B5E0649
SM 4500H+		05/25/05	05/25/05 B5E0604
SM 2320B	05/27/05	05/27/05	B5E0662
"	"	"	"
"	"	"	"
SM 2510B	05/26/05	05/26/05	B5E0649

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%REC Limits	RPD	RPD Limit	Qualifier
80-120			
	0.546	20	
	0.155	20	

80-120			
	0.138	20	
	1.23	20	
80-120			
	0.517	20	
	0.00	20	
80-120			
	0.00	20	
	0.00	20	
80-120			

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%REC Limits	RPD	RPD Limit	Qualifier
	0.00	20	J

80-120				
	2.25	20		
	4.65	20		
80-120				
	0.00	20		
	0.00	20	J	

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ɔ the DNQ Estimated Concentration flag.

Report To:	U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION	**Lab No:**
	1655 HEINDEN RD	**R**
	ARCATA, CA 95521	**Phone:**
Attention:	CHRIS CURRENS	**P.O. #**
Project:	NPS - BASELINE WATER QUALITY INVENTORY	

General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL	Method	Analyzed
HEPPE ICE #1 Water (5100894-01) Sampled:10/24/05 17:00 Received:10/28/05 13:49							
pH	pH Units	**7.86**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**42**		2	5	SM 2320B	10/31/05
Bicarbonate	"	**52**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**358**		2	10	SM 2510B	11/07/05
HEPPE ICE #2 Water (5100894-02) Sampled:10/24/05 17:00 Received:10/28/05 13:49							
pH	pH Units	**7.89**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**42**		2	5	SM 2320B	10/31/05
Bicarbonate	"	**52**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**348**		2	10	SM 2510B	11/07/05
HEPPE ICE #3 Water (5100894-03) Sampled:10/24/05 17:00 Received:10/28/05 13:49							
pH	pH Units	**7.86**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**42**		2	5	SM 2320B	10/31/05
Bicarbonate	"	**52**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**348**		2	10	SM 2510B	11/07/05
CALDWELL ICE WALL (Composite of #1-3) Water (5100894-04) Sampled:10/25/05 09:00 Received:10/28/05 1							
pH	pH Units	**7.16**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**15**		2	5	SM 2320B	11/08/05
Bicarbonate	"	**18**		2	5	"	"

Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**41**		2	10	SM 2510B	11/07/05
CALDWELL FLOOR #4 Water (5100894-05) Sampled:10/25/05 09:00 Received:10/28/05 13:49							
pH	pH Units	**6.34**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	ND		2	5	SM 2320B	11/08/05
Bicarbonate	"	ND		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**15**		2	10	SM 2510B	11/03/05
CALDWELL FLOOR #5 Water (5100894-06) Sampled:10/25/05 09:00 Received:10/28/05 13:49							
pH	pH Units	**6.40**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**4**	J	2	5	SM 2320B	
Bicarbonate	"	**5**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**20**		2	10	SM 2510B	11/03/05
COX ICE #1 Water (5100894-07) Sampled:10/25/05 11:30 Received:10/28/05 13:49							
pH	pH Units	**6.60**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**4**	J	2	5	SM 2320B	
Bicarbonate	"	**5**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**18**		2	10	SM 2510B	11/03/05
COX ICE #2 Water (5100894-08) Sampled:10/25/05 11:30 Received:10/28/05 13:49							
pH	pH Units	**6.56**	I-03	0.01	0.01	SM 4500H+	

Analyte	**Units**	**Results**	**Qualifier**	**MDL**	**RL**	**Method**	**Analyzed**
COX ICE #2 Water (5100894-08) Sampled:10/25/05 11:30 Received:10/28/05 13:49							
Alkalinity as CaCO3	mg/l	**4**	J	2	5	SM 2320B	
Bicarbonate	"	**5**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**18**		2	10	SM 2510B	11/03/05
COX ICE #3 Water (5100894-09) Sampled:10/25/05 11:30 Received:10/28/05 13:49							
pH	pH Units	**6.42**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**3**	J	2	5	SM 2320B	
Bicarbonate	"	**3**	J	2	5	"	
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**14**		2	10	SM 2510B	11/03/05
UPPER ICE #1 Water (5100894-10) Sampled:10/25/05 14:00 Received:10/28/05 13:49							
pH	pH Units	**7.47**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**41**		2	5	SM 2320B	11/08/05
Bicarbonate	"	**50**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**136**		2	10	SM 2510B	11/07/05
UPPER ICE #2 Water (5100894-11) Sampled:10/25/05 14:00 Received:10/28/05 13:49							
pH	pH Units	**7.67**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**32**		2	5	SM 2320B	11/08/05
Bicarbonate	"	**38**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**121**		2	10	SM 2510B	11/07/05
UPPER ICE #3 Water (5100894-12) Sampled:10/25/05 14:00 Received:10/28/05 13:49							
pH	pH Units	**7.64**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**30**		2	5	SM 2320B	11/08/05
Bicarbonate	"	**37**		2	5	"	"

Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**120**		2	10	SM 2510B	11/07/05

MERRILL ICE #1 Water (5100894-13) Sampled:10/25/05 16:00 Received:10/28/05 13:49

pH	pH Units	**6.61**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**4**	J	2	5	SM 2320B	
Bicarbonate	"	**5**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**18**		2	10	SM 2510B	11/03/05

MERRILL ICE #2-3 Water (5100894-14) Sampled:10/25/05 16:00 Received:10/28/05 13:49

pH	pH Units	**6.69**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**5**		2	5	SM 2320B	11/08/05
Bicarbonate	"	**5**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**27**		2	10	SM 2510B	11/03/05

MERRILL POOL #5 Water (5100894-15) Sampled:10/25/05 16:00 Received:10/28/05 13:49

pH	pH Units	**8.34**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**114**		2	5	SM 2320B	11/08/05

General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL	Method	Analyzed

MERRILL POOL #5 Water (5100894-15) Sampled:10/25/05 16:00 Received:10/28/05 13:49

Bicarbonate	"	**139**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**252**		2	10	SM 2510B	11/07/05

MERRILL POOL #6 Water (5100894-16) Sampled:10/25/05 16:00 Received:10/28/05 13:49

pH	pH Units	**8.31**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**115**		2	5	SM 2320B	11/08/05
Bicarbonate	"	**140**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**266**		2	10	SM 2510B	11/07/05

MERRILL POOL #7 Water (5100894-17) Sampled:10/25/05 16:00 Received:10/28/05 13:49

pH	pH Units	**8.32**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**116**		2	5	SM 2320B	11/08/05
Bicarbonate	"	**142**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**256**		2	10	SM 2510B	11/07/05

BLUE GLACIER #3 Water (5100894-18) Sampled:10/26/05 10:00 Received:10/28/05 13:49

pH	pH Units	**5.85**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	ND		2	5	SM 2320B	11/08/05
Bicarbonate	"	ND		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**3**	J	2	10	SM 2510B	

BLUE GLACIER #4 Water (5100894-19) Sampled:10/26/05 10:00 Received:10/28/05 13:49

pH	pH Units	**5.60**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**3**	J	2	5	SM 2320B	
Bicarbonate	"	**4**	J	2	5	"	
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	ND		2	10	SM 2510B	11/03/05

UPPER LEVEL #1 Water (5100894-20) Sampled:10/26/05 11:00 Received:10/28/05 13:49

pH	pH Units	**6.13**	I-03	0.01	0.01	SM 4500H+	

Alkalinity as CaCO3	mg/l	**3**		2	5	SM 2320B	11/08/05
Bicarbonate	"	**4**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**3**	J	2	10	SM 2510B	

UPPER LEVEL #2 Water (5100894-21) Sampled:10/26/05 11:00 Received:10/28/05 13:49

pH	pH Units	**6.03**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**4**	J	2	5	SM 2320B	
Bicarbonate	"	**5**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**5**	J	2	10	SM 2510B	

CRYSTAL RED ROOM Water (5100894-22) Sampled:10/26/05 12:00 Received:10/28/05 13:49

pH	pH Units	**6.98**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**9**		2	5	SM 2320B	11/08/05
Bicarbonate	"	**11**		2	5	"	"

General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL	Method	Analyzed

CRYSTAL RED ROOM Water (5100894-22) Sampled:10/26/05 12:00 Received:10/28/05 13:49

Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**38**		2	10	SM 2510B	11/03/05

CRYSTAL RED ROOM Water (5100894-23) Sampled:10/26/05 12:00 Received:10/28/05 13:49

pH	pH Units	**7.05**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**40**		2	5	SM 2320B	11/08/05
Bicarbonate	"	**49**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**50**		2	10	SM 2510B	11/03/05

INCLINE #1 Water (5100894-24) Sampled:10/26/05 11:30 Received:10/28/05 13:49

pH	pH Units	**6.55**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**14**		2	5	SM 2320B	11/08/05
Bicarbonate	"	**16**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**5**	J	2	10	SM 2510B	

INCLINE #2 Water (5100894-25) Sampled:10/26/05 11:30 Received:10/28/05 13:49

pH	pH Units	**7.78**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**57**		2	5	SM 2320B	11/08/05
Bicarbonate	"	**70**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**74**		2	10	SM 2510B	11/03/05

INCLINE #3 Water (5100894-26) Sampled:10/26/05 11:30 Received:10/28/05 13:49

pH	pH Units	**7.88**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**61**		2	5	SM 2320B	11/08/05
Bicarbonate	"	**74**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**80**		2	10	SM 2510B	11/03/05

BIG PAINTED #1 Water (5100894-27) Sampled:10/26/05 15:00 Received:10/28/05 13:49

pH	pH Units	**7.65**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**30**		2	5	SM 2320B	11/08/05
Bicarbonate	"	**37**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**110**		2	10	SM 2510B	11/03/05

BIG PAINTED #2 Water (5100894-28) Sampled:10/26/05 15:00 Received:10/28/05 13:49

pH	pH Units	**7.66**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**30**		2	5	SM 2320B	11/08/05
Bicarbonate	"	**37**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**107**		2	10	SM 2510B	11/03/05

BIG PAINTED #3 Water (5100894-29) Sampled:10/26/05 15:00 Received:10/28/05 13:49

pH	pH Units	**7.67**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**30**		2	5	SM 2320B	11/08/05
Bicarbonate	"	**37**		2	5	"	"
Carbonate	"	ND		2	5	"	"

General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL	Method	Analyzed

BIG PAINTED #3 Water (5100894-29) Sampled:10/26/05 15:00 Received:10/28/05 13:49

Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**115**		2	10	SM 2510B	11/03/05

SKULL #1-3 Water (5100894-30) Sampled:10/26/05 16:00 Received:10/28/05 13:49

pH	pH Units	**7.39**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**26**		2	5	SM 2320B	11/08/05
Bicarbonate	"	**32**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**74**		2	10	SM 2510B	11/03/05

SKULL #4 Water (5100894-31) Sampled:10/26/05 16:00 Received:10/28/05 13:49

pH	pH Units	**7.40**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**22**		2	5	SM 2320B	11/08/05
Bicarbonate	"	**26**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**71**		2	10	SM 2510B	11/03/05

SKULL #5 Water (5100894-32) Sampled:10/26/05 16:00 Received:10/28/05 13:49

pH	pH Units	**7.47**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**25**		2	5	SM 2320B	11/08/05
Bicarbonate	"	**30**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**75**		2	10	SM 2510B	11/03/05

DUFFYS WELL W #1 Water (5100894-33) Sampled:10/27/05 15:30 Received:10/28/05 13:49

pH	pH Units	**8.31**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**180**		2	5	SM 2320B	11/08/05
Bicarbonate	"	**220**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**589**		2	10	SM 2510B	11/07/05

DUFFYS WELL W #2 Water (5100894-34) Sampled:10/27/05 15:30 Received:10/28/05 13:49

pH	pH Units	**7.45**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**25**		2	5	SM 2320B	11/08/05
Bicarbonate	"	**30**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**213**		2	10	SM 2510B	11/07/05

DUFFYS WELL W #3 Water (5100894-35) Sampled:10/27/05 15:30 Received:10/28/05 13:49

pH	pH Units	**7.47**	I-03	0.01	0.01	SM	
Alkalinity as CaCO3	mg/l	**25**		2	5	SM 2320B	11/08/05
Bicarbonate	"	**31**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"

Specific Conductance	umhos/cm	**114**		2	10	SM 2510B	11/07/05
DUFFYS WELL ICE #1 Water (5100894-36) Sampled:10/27/05 15:30 Received:10/28/05 13:49							
pH	pH Units	**6.11**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**9**		2	5	SM 2320B	11/08/05
Bicarbonate	"	**8**		2	5	"	"
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"

General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL	Method	Analyzed
DUFFYS WELL ICE #1 Water (5100894-36) Sampled:10/27/05 15:30 Received:10/28/05 13:49							
Specific Conductance	umhos/cm	**10**		2	10	SM 2510B	11/07/05
DUFFYS WELL ICE #2 Water (5100894-37) Sampled:10/27/05 15:30 Received:10/28/05 13:49							
pH	pH Units	**6.07**	I-03	0.01	0.01	SM 4500H+	
Alkalinity as CaCO3	mg/l	**2**	J	2	5	SM 2320B	
Bicarbonate	"	**2**	J	2	5	"	
Carbonate	"	ND		2	5	"	"
Hydroxide	"	ND		2	5	"	"
Specific Conductance	umhos/cm	**12**		2	10	SM 2510B	11/03/05

Quality Control Data

Spike Source %REC

Analyte	Result	RL	Units	Level	Result	%REC	Limits	RPD
General Chemistry								
Batch B5J0604 - General Prep - GC								
LCS								
pH	6.99		pH Units	7.00		99.9	80-120	
Duplicate Source: 5100894-01								
pH	7.87	0.01	pH Units		7.86			0.127
Duplicate Source: 5100894-11								
pH	7.63	0.01	pH Units		7.67			0.523
Batch B5J0605 - General Prep - GC								
LCS								
pH	7.01		pH Units	7.00		100	80-120	
Duplicate Source: 5100894-21								
pH	6.02	0.01	pH Units		6.03			0.166
Batch B5K0019 - General Prep - GC								
LCS								
pH	7.00		pH Units	7.00		100	80-120	
Duplicate Source: 5100894-31								
pH	7.39	0.01	pH Units		7.40			0.135
Batch B5K0020 - General Prep - GC								
Blank								
Alkalinity as CaCO3	ND	5	mg/l					
Bicarbonate	ND	5	mg/l					
Carbonate	ND	5	mg/l					
Hydroxide	ND	5	mg/l					
LCS								
Alkalinity as CaCO3	0.05		mg/l	0.050		100	80-120	
Duplicate Source: 5100894-05								
Alkalinity as CaCO3	ND	5	mg/l		ND			
Duplicate Source: 5100894-15								
Alkalinity as CaCO3	115	5	mg/l		114			0.873
Batch B5K0021 - General Prep - GC								
Blank								
Alkalinity as CaCO3	ND	5	mg/l					
Bicarbonate	ND	5	mg/l					
Carbonate	ND	5	mg/l					
Hydroxide	ND	5	mg/l					
LCS								
Alkalinity as CaCO3	0.05		mg/l	0.050		100	80-120	
Duplicate Source: 5100894-22								
Alkalinity as CaCO3	10.0	5	mg/l		9			10.5

Quality Control Data

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD
General Chemistry								
Batch B5K0021 - General Prep - GC								

Duplicate	**Source: 5100894-31**							
Alkalinity as CaCO3		22.0	5	mg/l		22		0.00
Batch B5K0065 - General Prep - GC								
Blank								
Specific Conductance		ND	10	umhos/cm				
LCS								
Specific Conductance		99.0		umhos/cm	100		99.0	80-120
Duplicate	**Source: 5100894-05**							
Specific Conductance		15.0	10	umhos/cm		15		0.00
Duplicate	**Source: 5100894-21**							
Specific Conductance		5.00	10	umhos/cm		5		0.00
Batch B5K0066 - General Prep - GC								
Blank								
Specific Conductance		ND	10	umhos/cm				
LCS								
Specific Conductance		98.0		umhos/cm	100		98.0	80-120
Duplicate	**Source: 5100894-31**							
Specific Conductance		71.0	10	umhos/cm		71		0.00
Batch B5K0149 - General Prep - GC								
Blank								
Specific Conductance		ND	10	umhos/cm				
LCS								
Specific Conductance		101		umhos/cm	100		101	80-120
Duplicate	**Source: 5110253-01**							
Specific Conductance		265	10	umhos/cm		262		1.14
Duplicate	**Source: 5110285-01**							
Specific Conductance		6.00	10	umhos/cm		6		0.00
Batch B5K0151 - General Prep - GC								
Blank								
Specific Conductance		ND	10	umhos/cm				
LCS								
Specific Conductance		107		umhos/cm	100		107	80-120
Duplicate	**Source: 5100894-01**							
Specific Conductance		359	10	umhos/cm		358		0.279
Duplicate	**Source: 5100894-34**							
Specific Conductance		215	10	umhos/cm		213		0.935

Approved By

Basic Laboratory, Inc.

California D.O.H.S. Cert #1677

5100894

eported: 11/16/05

(707) 825-5189

	Prepared	Batch	
10/31/05	10/31/05	B5J0604	
10/31/05	B5K0020		
"	"		
"	"		
"	"		
11/07/05	B5K0151		
10/31/05	10/31/05	B5J0604	
10/31/05	B5K0020		
"	"		
"	"		
"	"		
11/07/05	B5K0151		
10/31/05	10/31/05	B5J0604	
10/31/05	B5K0020		
"	"		
"	"		
"	"		
11/07/05	B5K0151		
13:49			
10/31/05	10/31/05	B5J0604	
11/08/05	B5K0020		
"	"		

"	"	
"	"	
11/07/05	B5K0151	
10/31/05	10/31/05	B5J0604
11/08/05	B5K0020	
"	"	
"	"	
"	"	
11/03/05	B5K0065	
10/31/05	10/31/05	B5J0604
11/08/05	11/08/05	B5K0020
"	"	
"	"	
"	"	
11/03/05	B5K0065	
10/31/05	10/31/05	B5J0604
11/08/05	11/08/05	B5K0020
"	"	
"	"	
"	"	
11/03/05	B5K0065	
10/31/05	10/31/05	B5J0604

Prepared	**Batch**	
11/08/05	11/08/05	B5K0020
"	"	
"	"	
"	"	
11/03/05	B5K0065	
10/31/05	10/31/05	B5J0604
11/08/05	11/08/05	B5K0020
"	"	"
"	"	
"	"	
11/03/05	B5K0065	
10/31/05	10/31/05	B5J0604
11/08/05	B5K0020	
"	"	
"	"	
"	"	
11/07/05	B5K0151	
10/31/05	10/31/05	B5J0604
11/08/05	B5K0020	
"	"	
"	"	
"	"	
11/07/05	B5K0151	
10/31/05	10/31/05	B5J0604
11/08/05	B5K0020	
"	"	

"	"	
"	"	
11/07/05	B5K0151	
10/31/05	10/31/05	B5J0604
11/08/05	11/08/05	B5K0020
"	"	
"	"	
"	"	
11/03/05	B5K0065	
10/31/05	10/31/05	B5J0604
11/08/05	B5K0020	
"	"	
"	"	
"	"	
11/03/05	B5K0065	
10/31/05	10/31/05	B5J0604
11/08/05	B5K0020	

Prepared	**Batch**	
11/08/05	"	
"	"	
"	"	
11/07/05	B5K0151	
10/31/05	10/31/05	B5J0604
11/08/05	B5K0020	
"	"	
"	"	
"	"	
11/07/05	B5K0149	
10/31/05	10/31/05	B5J0604
11/08/05	B5K0020	
"	"	
"	"	
"	"	
11/07/05	B5K0151	
10/31/05	10/31/05	B5J0604
11/08/05	B5K0020	
"	"	
"	"	
"	"	
11/03/05	11/03/05	B5K0065
10/31/05	10/31/05	B5J0604
11/08/05	11/08/05	B5K0020
"	"	"
"	"	
"	"	
11/03/05	B5K0065	
10/31/05	10/31/05	B5J0604

11/08/05	B5K0020	
"	"	
"	"	
"	"	
11/03/05	11/03/05	B5K0065
10/31/05	10/31/05	B5J0605
11/08/05	11/08/05	B5K0021
"	"	
"	"	
"	"	
11/03/05	11/03/05	B5K0065
10/31/05	10/31/05	B5J0605
11/08/05	B5K0021	
"	"	

Prepared	Batch	
11/08/05	"	
"	"	
11/03/05	B5K0065	
10/31/05	10/31/05	B5J0605
11/08/05	B5K0021	
"	"	
"	"	
"	"	
11/03/05	B5K0065	
10/31/05	10/31/05	B5J0605
11/08/05	B5K0021	
"	"	
"	"	
"	"	
11/03/05	11/03/05	B5K0065
10/31/05	10/31/05	B5J0605
11/08/05	B5K0021	
"	"	
"	"	
"	"	
11/03/05	B5K0065	
10/31/05	10/31/05	B5J0605
11/08/05	B5K0021	
"	"	
"	"	
"	"	
11/03/05	B5K0065	

10/31/05	10/31/05	B5J0605
11/08/05	B5K0021	
"	"	
"	"	
"	"	
11/03/05	B5K0065	

10/31/05	10/31/05	B5J0605
11/08/05	B5K0021	
"	"	
"	"	

Prepared	**Batch**	
11/08/05	"	
11/03/05	B5K0065	

10/31/05	10/31/05	B5K0019
11/08/05	B5K0021	
"	"	
"	"	
"	"	
11/03/05	B5K0065	

10/31/05	10/31/05	B5K0019
11/08/05	B5K0021	
"	"	
"	"	
"	"	
11/03/05	B5K0066	

10/31/05	10/31/05	B5K0019
11/08/05	B5K0021	
"	"	
"	"	
"	"	
11/03/05	B5K0066	

10/31/05	10/31/05	B5K0019
11/08/05	B5K0021	
"	"	
"	"	
"	"	
11/07/05	B5K0151	

10/31/05	10/31/05	B5K0019
11/08/05	B5K0021	
"	"	
"	"	
"	"	
11/07/05	B5K0151	

10/31/05	10/31/05	B5K0019
11/08/05	B5K0021	
"	"	
"	"	
"	"	

11/07/05	B5K0151	
10/31/05	10/31/05	B5K0019
11/08/05	B5K0021	
"	"	
"	"	
"	"	

Prepared	Batch	
11/07/05	B5K0151	
10/31/05	10/31/05	B5K0019
11/08/05	11/08/05	B5K0021
"	"	"
"	"	
"	"	
11/03/05	B5K0066	

Limit	Qualifier
20	
20	
20	
20	
20	
20	
20	

RPD Limit	Qualifier

20

20

20 J

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Site	Date	Temp ©	Specific Conductance	D O	pH
Lassen Volcanic National Park (LAVO)					
Manzanita Creek	6/6/2005	5.24	62	11.4	8.69
		5.23	61	11.33	8.65
		5.22	60	11.27	8.72
Manzanita Lake	6/6/2005	12.31	71	12.34	9.5
		12.53	72	11.29	9.41
		12.59	72	11.22	9.4
Hat Creek	6/6/2005	5.24	37	11.14	8.25
		5.14	37	11.11	8.2
		5.11	36	11.15	8.18
Snag Lake	6/7/2005	14.18	31	8.77	8.26
		13.95	32	8.89	8.24
		14.09	31	8.95	8.33
Butte Lake	6/7/2005	13.46	48	9.21	8.93
		13.68	48	9.44	8.91
		13.7	48	9.41	8.93
Kings Creek	6/8/2005	1.84	26	11.3	7.6
		1.85	26	11.33	7.56
		1.85	26	11.33	7.54
Mill Creek	6/8/2005	3.01	71	11.45	7.76
		3.03	71	11.43	7.76
		3.04	72	11.36	7.76
Little Willow Lake	6/8/2005	6.45	8	7.9	6.64
		6.61	9	7.39	6.63
		6.73	9	7.44	6.67
Hot Springs Creek	6/8/2005	10.16	81	9.79	8.51
		10.15	81	9.73	8.5
		10.14	81	9.76	8.5
Summit Lake	6/9/2005	2.65	9	9.3	6.38
		2.8	10	9.31	6.43
		2.41	9	9.57	6.46
Jakey Lake	7/25/2005	22.44	13	7.8	7.86
		22.46	13	7.67	7.76
		22.47	13	7.66	7.73

Horseshoe Lake	7/26/2005	20.81	31	7.27	8.2
		21.02	31	7.26	8.22
		21.01	31	7.25	8.23
Crystal Lake	7/26/2005	21.82	7	7.11	7.41
		21.75	7	7.12	7.38
		21.85	7	7.12	7.36
Juniper Lake	7/26/2005	18.67	10	7.78	7.5
		18.64	10	7.8	7.53
		18.79	10	7.8	7.51
Ridge Lake	7/26/2005	13.32	94	9	6.05
		13.38	94	9.01	6.06
		13.53	94	9.06	6.09
Emerald Lake	7/27/2005	13.09	9	8.17	7.07
		13.1	9	8.16	7.05
		13.03	9	8.17	7.01
Lake Helen	7/27/2005	6.05	2	10.24	6.33
		5.97	2	10.26	6.27
		6.06	2	10.13	6.33
Terrace Lake	7/27/2005	16.57	1	7.69	6.11
		16.96	1	7.66	6.08
		17.02	1	7.51	6.18
Shadow Lake	7/27/2005	16.42	2	7.92	6.51
		16.5	2	7.9	6.53
		16.52	2	7.88	6.55
Cliff Lake	7/27/2005	15.03	71	9.85	8.64
		14.83	72	10.29	8.66
		15.39	72	10.43	8.67
Crumbaugh Lake	7/27/2005	18.37	34	7.62	6.8
		18.43	33	7.58	6.79
		18.46	33	7.54	6.77
Sifford Lake #1 Main Body	7/28/2005	21.4	2	6.13	6.3
		21.49	2	6.13	6.3
		21.51	2	6.19	6.26
Sifford Lake #2	7/28/2005	20.84	2	6.1	6.35
		20.92	2	6.2	6.35
		20.95	2	6.19	6.34

Kings Creek	8/23/2005	11.84	33	9.69	8.36
		11.85	33	9.66	8.34
		11.84	33	9.72	8.35
Summit Lake	8/23/2005	21.51	25	7.65	8.3
		21.61	25	7.66	8.27
		21.63	25	7.63	8.28
Hat Creek	8/23/2005	11.97	96	9.59	8.74
		12	96	9.5	8.73
		11.96	96	9.53	8.7
Manzanita Creek	8/23/2005	9.81	67	9.77	8.61
		9.8	69	9.76	8.58
		9.79	94	9.8	8.56
Manzanita Lake	8/23/2005	17.96	80	na	9.94
		18.25	81	na	9.95
		18.92	82	na	9.94
Lake Helen	8/23/2005	14.15	2	7.34	7.63
		14.15	2	7.33	7.5
		14.09	2	7.38	7.39
Emerald Lake	8/23/2005	17.22	8	7.2	7.46
		17.17	8	7.31	7.39
		17.11	8	7.29	7.38
Mill Creek	8/23/2005	6.82	39	9.77	7.98
		6.85	39	9.72	7.96
		6.87	38	9.61	8.01
Silver Lake	8/29/2005	20.1	4	7.35	7.78
		20.06	4	7.44	7.74
		20.11	4	7.68	7.68
Feather Lake	8/29/2005	20.51	2	7.08	7.25
		20.5	2	7.13	7.2
		20.48	2	7.13	7.19
Rainbow Lake	8/30/2005	19.1	9	6.9	7.82
		18.95	9	6.95	7.82
		18.36	9	7.02	7.83
Lower Twin Lake	8/30/2005	18.43	5	7.01	7.67
		18.62	5	7.01	7.66
		18.67	5	6.99	7.64
Upper Twin Lake	8/30/2005	19.62	3	7.12	7.23
		19.61	3	7.13	7.27

		19.62	3	7.13	7.25
Terrace Lake	8/31/2005	15.31	1	7.28	6.55
		15.21	1	7.31	6.52
		15.31	1	7.34	6.5
Crumbaugh Lake	8/31/2005	16.41	33	6.72	7.25
		16.45	32	6.65	7.24
		16.51	33	6.7	7.24
Butte Lake	8/31/2005	17.8	46	8.46	9.41
		17.69	46	8.48	9.42
		17.87	46	8.44	9.43
Snag Lake	9/1/2005	15.52	34	7.81	8.9
		15.7	33	7.88	9.06
		15.76	33	7.95	9.15
Horseshoe Lake	9/1/2005	17.6	29	7.77	8.6
		17.57	29	7.81	8.61
		17.52	29	7.81	8.59
Crystal Lake	9/1/2005	18.56	7	6.77	7.63
		18.29	7	6.76	7.61
		18.51	7	6.75	7.6
Juniper Lake	9/1/2005	17.4	8	7.91	7.78
		17.44	8	7.9	7.79
		17.53	8	7.85	7.79

Coordinate	fecal sample collected	water sample collected	Nitrate/Cl sample collected
10T 0622064	na	yes	na
UTM 4488004	na	yes	na
	na	yes	na
10T 0621221	na	yes	na
UTM 4488081	na	yes	na
	na	yes	na
10T 06030103	na	yes	na
UTM 4485270	na	yes	na
	na	yes	na
10T 0630104	yes	yes	na
UTM 4485272	yes	yes	na
	yes	yes	na
10T 0630104	yes	yes	na
UTM 4485272	yes	yes	na
10T 0644044	yes	yes	na
UTM 4491642			
10T 0630665	na	yes	na
UTM 4479830	na	yes	na
	na	yes	na
10T 0624345	na	yes	na
UTM 4479830	na	yes	na
	na	yes	na
10T 0636730	na	yes	na
UTM 4474385	na	yes	na
	na	yes	na
10T 0638789	na	yes	na
UTM 4477127	na	yes	na
	na	yes	na
10T 0633643	yes	yes	na
UTM 4483576	yes	yes	na
	yes	yes	na
na	na	yes	na
na	na	yes	na
na	na	yes	na

10T 0641421	yes	yes	na
UTM 4481151	yes	yes	na
	yes	yes	na
10T 0644964	yes	yes	na
UTM 4479999	yes	yes	na
	yes	yes	na
10T 0644490	yes	yes	na
UTM 4478960	yes	yes	na
	yes	yes	na
na	na	yes	na
na	na	yes	na
na	na	yes	na
10T 0625717	yes	yes	na
UTM 4480498	yes	yes	na
	yes	yes	na
10T 0626482	yes	yes	na
UTM 4480465	yes	yes	na
	yes	yes	na
10T 0629486	yes	yes	na
UTM 4481854	yes	yes	na
	yes	yes	na
na	na	yes	na
na	na	yes	na
na	na	yes	na
na	na	yes	na
na	na	yes	na
na	na	yes	na
10T 0628223	yes	yes	na
UTM 4481854	yes	yes	na
	yes	yes	na
na	na	yes	na
na	na	yes	na
na	na	yes	na
na	na	yes	na
na	na	yes	na
na	na	yes	na

10T 0630636	na	yes	na
UTM 4479829	na	yes	na
	na	yes	na
10T 0633637	yes	yes	na
UTM 4483572	yes	yes	na
	yes	yes	na
10T 0630104	na	yes	na
UTM 4485285	na	yes	na
	na	yes	na
10T 0622073	na	yes	na
UTM 4487971	na	yes	na
	na	yes	na
10T 0621244	yes	yes	na
UTM 4488075	yes	yes	na
	yes	yes	na
10T 0626482	yes	yes	na
UTM 4480465	yes	yes	na
	yes	yes	na
10T 0625717	yes	yes	na
UTM 4480498	yes	yes	na
	yes	yes	na
10T 0624344	na	yes	na
UTM 4476527	na	yes	na
	na	yes	na
10T 0636914	na	yes	na
UTM 4487432	na	yes	na
	na	yes	na
10T 0637268	na	yes	na
UTM 4487263	na	yes	na
	na	yes	na
10T 0639729	na	yes	na
UTM 4485641	na	yes	na
	na	yes	na
10T 0638925	yes	yes	na
UTM 4485210	yes	yes	na
	yes	yes	na
10T 0638196	yes	yes	na
UTM 4484780	yes	yes	na

	yes	yes	na
10T 0629486	yes	yes	na
UTM 4481854	yes	yes	na
	yes	yes	na
10T 0628223	yes	yes	na
UTM 4481854	yes	yes	na
	yes	yes	na
10T 0643930	yes	yes	na
UTM 4491660	yes	yes	na
	yes	yes	na
10T0643192	yes	yes	na
UTM 4484880	yes	yes	na
	yes	yes	na
10T 0641421	yes	yes	na
UTM 4481151	yes	yes	na
	yes	yes	na
10T 0644964	yes	yes	na
UTM 4479999	yes	yes	na
	yes	yes	na
10T 0644490	yes	yes	na
UTM 4478960	yes	yes	na
	yes	yes	na

Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521
Attention: CHRIS CURRENS
Project: NPS - BASELINE WATER QUALITY INVENTORY

General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL	Method
KINGS CREEK 1 Surface Water (5081018-01) Sampled:08/23/05 15:00 Received:08/24/05 13:22						
pH	pH Units	**7.83**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**18**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**22**		2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	**40**		2	10	SM 2510B
KINGS CREEK 2 Surface Water (5081018-02) Sampled:08/23/05 15:00 Received:08/24/05 13:22						
Alkalinity as CaCO3	mg/l	**18**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**22**		2	5	"
Carbonate	"	s		2	5	"
KINGS CREEK 3 Surface Water (5081018-03) Sampled:08/23/05 15:00 Received:08/24/05 13:22						
Alkalinity as CaCO3	mg/l	**19**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**23**		2	5	"
Carbonate	"	ND		2	5	"
SUMMIT LAKE 1 Surface Water (5081018-04) Sampled:08/23/05 15:30 Received:08/24/05 13:22						
pH	pH Units	**7.98**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**14**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**17**		2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	**25**		2	10	SM 2510B
SUMMIT LAKE 2 Surface Water (5081018-05) Sampled:08/23/05 15:30 Received:08/24/05 13:22						
Alkalinity as CaCO3	mg/l	**15**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**18**		2	5	"
Carbonate	"	ND		2	5	"
SUMMIT LAKE 3 Surface Water (5081018-06) Sampled:08/23/05 15:30 Received:08/24/05 13:22						
Alkalinity as CaCO3	mg/l	**15**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**18**		2	5	"
Carbonate	"	ND		2	5	"
HAT CREEK 1 Surface Water (5081018-07) Sampled:08/23/05 16:00 Received:08/24/05 13:22						
pH	pH Units	**8.50**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**65**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**79**		2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	**135**		2	10	SM 2510B
HAT CREEK 2 Surface Water (5081018-08) Sampled:08/23/05 16:00 Received:08/24/05 13:22						
Alkalinity as CaCO3	mg/l	**66**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**81**		2	5	"
Carbonate	"	ND		2	5	"
HAT CREEK 3 Surface Water (5081018-09) Sampled:08/23/05 16:00 Received:08/24/05 13:22						
Alkalinity as CaCO3	mg/l	**64**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**78**		2	5	"

Approved By

Basic Laboratory, Inc.

California D.O.H.S. Cert #1677

Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY

General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL	Method
HAT CREEK 3 Surface Water (5081018-09) Sampled:08/23/05 16:00 Received:08/24/05 13:22						
Carbonate	"	ND		2	5	"
MANZANITA CREEK 1 Surface Water (5081018-10) Sampled:08/23/05 17:00 Received:08/24/05 13:22						
pH	pH Units	**8.16**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**49**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**59**		2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	**102**		2	10	SM 2510B
MANZANITA CREEK 2 Surface Water (5081018-11) Sampled:08/23/05 17:00 Received:08/24/05 13:22						
Alkalinity as CaCO3	mg/l	**49**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**60**		2	5	"
Carbonate	"	ND		2	5	"
MANZANITA CREEK 3 Surface Water (5081018-12) Sampled:08/23/05 17:00 Received:08/24/05 13:22						
Alkalinity as CaCO3	mg/l	**50**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**61**		2	5	"
Carbonate	"	ND		2	5	"
MANZANITA LAKE 1 Surface Water (5081018-13) Sampled:08/23/05 17:30 Received:08/24/05 13:22						
pH	pH Units	**9.62**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**47**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**31**		2	5	"
Carbonate	"	**13**		2	5	"
Specific Conductance	umhos/cm	**95**		2	10	SM 2510B
MANZANITA LAKE 2 Surface Water (5081018-14) Sampled:08/23/05 17:30 Received:08/24/05 13:22						
Alkalinity as CaCO3	mg/l	**47**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**33**		2	5	"
Carbonate	"	**12**		2	5	"
MANZANITA LAKE 3 Surface Water (5081018-15) Sampled:08/23/05 17:30 Received:08/24/05 13:22						
Alkalinity as CaCO3	mg/l	**47**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**28**		2	5	"
Carbonate	"	**14**		2	5	"
LAKE HELEN 1 Surface Water (5081018-22) Sampled:08/24/05 09:30 Received:08/24/05 13:22						
pH	pH Units	**6.63**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**3**	J	2	5	SM 2320I
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**4**	J	2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	ND		2	10	SM 2510B

LAKE HELEN 2 Surface Water (5081018-23) Sampled:08/24/05 09:30 Received:08/24/05 13:22							
Alkalinity as CaCO3	mg/l	**4**	J	2	5	SM 2320I
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**5**		2	5	"
Carbonate	"	ND		2	5	"
LAKE HELEN 3 Surface Water (5081018-24) Sampled:08/24/05 09:30 Received:08/24/05 13:22						
Alkalinity as CaCO3	mg/l	**4**	J	2	5	SM 2320I

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Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY

General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL	Method
LAKE HELEN 3 Surface Water (5081018-24) Sampled:08/24/05 09:30 Received:08/24/05 13:22						
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**5**		2	5	"
Carbonate	"	ND		2	5	"
EMERALD LAKE 1 Surface Water (5081018-25) Sampled:08/24/05 10:00 Received:08/24/05 13:22						
pH	pH Units	**7.23**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**7**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**9**		2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	**9**	J	2	10	SM 2510I
EMERALD LAKE 2 Surface Water (5081018-26) Sampled:08/24/05 10:00 Received:08/24/05 13:22						
Alkalinity as CaCO3	mg/l	**7**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**9**		2	5	"
Carbonate	"	ND		2	5	"
EMERALD LAKE 3 Surface Water (5081018-27) Sampled:08/24/05 10:00 Received:08/24/05 13:22						
Alkalinity as CaCO3	mg/l	**5**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**6**		2	5	"
Carbonate	"	ND		2	5	"
MILL CREEK 1 Surface Water (5081018-28) Sampled:08/24/05 11:00 Received:08/24/05 13:22						
pH	pH Units	**7.39**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**18**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**22**		2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	**64**		2	10	SM 2510B
MILL CREEK 2 Surface Water (5081018-29) Sampled:08/24/05 11:00 Received:08/24/05 13:22						
Alkalinity as CaCO3	mg/l	**19**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**23**		2	5	"
Carbonate	"	ND		2	5	"
MILL CREEK 3 Surface Water (5081018-30) Sampled:08/24/05 11:00 Received:08/24/05 13:22						
Alkalinity as CaCO3	mg/l	**19**		2	5	SM 2320B

Hydroxide	"	ND	2	5	"
Bicarbonate	"	**23**	2	5	"
Carbonate	"	ND	2	5	"

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Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY

Microbiology

Analyte	Units	Results	Qualifier	MDL	RL	Method
MANZANITA LAKE 1 Surface Water (5081018-16) Sampled:08/24/05 08:00 Received:08/24/05 13:22						
Total Coliforms	MPN/100 ml	**49**			2	SM 9221B/E
Fecal Coliforms	"	<2			2	"
MANZANITA LAKE 2 Surface Water (5081018-17) Sampled:08/24/05 08:00 Received:08/24/05 13:22						
Total Coliforms	MPN/100 ml	**49**			2	SM 9221B/E
Fecal Coliforms	"	<2			2	"
MANZANITA LAKE 3 Surface Water (5081018-18) Sampled:08/24/05 08:00 Received:08/24/05 13:22						
Total Coliforms	MPN/100 ml	**33**			2	SM 9221B/E
Fecal Coliforms	"	<2			2	"
SUMMIT LAKE 1 Surface Water (5081018-19) Sampled:08/24/05 09:00 Received:08/24/05 13:22						
Total Coliforms	MPN/100 ml	**8**			2	SM 9221B/E
Fecal Coliforms	"	<2			2	"
SUMMIT LAKE 2 Surface Water (5081018-20) Sampled:08/24/05 09:00 Received:08/24/05 13:22						
Total Coliforms	MPN/100 ml	**17**			2	SM 9221B/E
Fecal Coliforms	"	**2**			2	"
SUMMIT LAKE 3 Surface Water (5081018-21) Sampled:08/24/05 09:00 Received:08/24/05 13:22						
Total Coliforms	MPN/100 ml	**9**			2	SM 9221B/E
Fecal Coliforms	"	**2**			2	"
LAKE HELEN 1 Surface Water (5081018-22) Sampled:08/24/05 09:30 Received:08/24/05 13:22						
Total Coliforms	MPN/100 ml	<2			2	SM 9221B/E
Fecal Coliforms	"	<2			2	"
LAKE HELEN 2 Surface Water (5081018-23) Sampled:08/24/05 09:30 Received:08/24/05 13:22						
Total Coliforms	MPN/100 ml	<2			2	SM 9221B/E
Fecal Coliforms	"	<2			2	"
LAKE HELEN 3 Surface Water (5081018-24) Sampled:08/24/05 09:30 Received:08/24/05 13:22						
Total Coliforms	MPN/100 ml	<2			2	SM 9221B/E
Fecal Coliforms	"	<2			2	"

EMERALD LAKE 1	**Surface Water**	**(5081018-25)**	**Sampled:08/24/05 10:00**	**Received:08/24/05 13:22**		
Total Coliforms		MPN/100 ml	**8**		2	SM 9221B/E
Fecal Coliforms		"	<2		2	"
EMERALD LAKE 2	**Surface Water**	**(5081018-26)**	**Sampled:08/24/05 10:00**	**Received:08/24/05 13:22**		
Total Coliforms		MPN/100 ml	**9**		2	SM 9221B/E
Fecal Coliforms		"	<2		2	"
EMERALD LAKE 3	**Surface Water**	**(5081018-27)**	**Sampled:08/24/05 10:00**	**Received:08/24/05 13:22**		
Total Coliforms		MPN/100 ml	**11**		2	SM 9221B/E
Fecal Coliforms		"	<2		2	"

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California D.O.H.S. Cert #1677

Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY

Quality Control Data

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits
General Chemistry							
Batch B5H0595 - General Prep - GC							
LCS							
pH	7.03		pH Units	7.00		100	80-120
Duplicate **Source: 5081005-01**							
pH	9.29	0.01	pH Units		9.28		
Duplicate **Source: 5081012-01**							
pH	8.19	0.01	pH Units		8.18		
Batch B5H0657 - General Prep - GC							
Blank							
Alkalinity as CaCO3	ND	5	mg/l				
Hydroxide	ND	5	mg/l				
Bicarbonate	ND	5	mg/l				
Carbonate	ND	5	mg/l				
LCS							
Alkalinity as CaCO3	0.05		mg/l	0.0500		100	80-120

Duplicate	**Source: 5081018-01**							
Alkalinity as CaCO3		19.0	5	mg/l		18		
Duplicate	**Source: 5081018-11**							
Alkalinity as CaCO3		49.0	5	mg/l		49		
Batch B5H0729 - General Prep - GC								
Blank								
Specific Conductance		ND	10	umhos/cm				
LCS								
Specific Conductance		103		umhos/cm	100		103	80-120
Duplicate	**Source: 5080991-01**							
Specific Conductance		364	10	umhos/cm		366		
Duplicate	**Source: 5081018-22**							
Specific Conductance		ND	10	umhos/cm		ND		
Batch B5I0013 - General Prep - GC								
Blank								
Alkalinity as CaCO3		ND	5	mg/l				
Hydroxide		ND	5	mg/l				
Bicarbonate		ND	5	mg/l				
Carbonate		ND	5	mg/l				
LCS								
Alkalinity as CaCO3		0.05		mg/l	0.0500		100	80-120
Duplicate	**Source: 5081018-27**							
Alkalinity as CaCO3		6.0	5	mg/l		5		

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Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY

Notes and Definitions

J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag). The J flag is equivalent to the DNQ E
A-01	<2
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the detection limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
<	Less than reporting limit
≤	Less than or equal to reporting limit
>	Greater than reporting limit
≥	Greater than or equal to reporting limit

MDL	Method Detection Limit
RL/ML	Minimum Level of Quantitation
MCL/AL	Maxium Contaminant Level/Action Level
mg/kg	Results reported as wet weight
TTLC	Total Threshold Limit Concentration
STLC	Soluble Threshold Limit Concentration
TCLP	Toxicity Characteristic Leachate Procedure

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Basic Laboratory, Inc.

California D.O.H.S. Cert #1677

Lab No: 5081018
Reported: 09/07/05
Phone: (707) 825-5189
P.O. #

Analyzed	Prepared	Batch
08/24/05	08/24/05	B5H0595
08/27/05	08/27/05	B5H0657
"	"	"
"	"	"
"	"	"
08/31/05	08/31/05	B5H0729
08/27/05	08/27/05	B5H0657
"	"	"
"	"	"
"	"	"
08/27/05	08/27/05	B5H0657
"	"	"
"	"	"
"	"	"
08/24/05	08/24/05	B5H0595
08/27/05	08/27/05	B5H0657
"	"	"
"	"	"
"	"	"
08/31/05	08/31/05	B5H0729
08/27/05	08/27/05	B5H0657
"	"	"
"	"	"
"	"	"
08/27/05	08/27/05	B5H0657
"	"	"
"	"	"
"	"	"
08/24/05	08/24/05	B5H0595
08/27/05	08/27/05	B5H0657
"	"	"
"	"	"
"	"	"
08/31/05	08/31/05	B5H0729
08/27/05	08/27/05	B5H0657
"	"	"
"	"	"
"	"	"
08/27/05	08/27/05	B5H0657
"	"	"
"	"	"

Lab No: 5081018
Reported: 09/07/05
Phone: (707) 825-5189
P.O. #

Analyzed	Prepared	Batch
"	08/27/05	"
08/24/05	08/24/05	B5H0595
08/27/05	08/27/05	B5H0657
"	"	"
"	"	"
"	"	"
08/31/05	08/31/05	B5H0729
08/27/05	08/27/05	B5H0657
"	"	"
"	"	"
"	"	"
08/27/05	08/27/05	B5H0657
"	"	"
"	"	"
"	"	"
08/24/05	08/24/05	B5H0595
08/27/05	08/27/05	B5H0657
"	"	"
"	"	"
"	"	"
08/31/05	08/31/05	B5H0729
08/27/05	08/27/05	B5H0657
"	"	"
"	"	"
"	"	"
08/27/05	08/27/05	B5H0657
"	"	"
"	"	"
"	"	"
08/24/05	08/24/05	B5H0595
B	08/27/05	08/27/05 B5H0657
"	"	"
	"	" "
"	"	"
08/31/05	08/31/05	B5H0729

B	08/27/05	08/27/05	B5H0657
"	"	"	
"	"	"	
"	"	"	
B	08/27/05	08/27/05	B5H0657

Lab No: 5081018
Reported: 09/07/05
Phone: (707) 825-5189
P.O. #

Analyzed	Prepared	Batch
"	08/27/05	"
"	"	"
"	"	"
08/24/05	08/24/05	B5H0595
08/27/05	08/27/05	B5H0657
"	"	"
"	"	"
"	"	"
B	08/31/05	08/31/05	B5H0729
08/27/05	08/27/05	B5H0657
"	"	"
"	"	"
"	"	"
08/29/05	08/29/05	B5I0013
"	"	"
"	"	"
"	"	"
08/24/05	08/24/05	B5H0595
08/29/05	08/29/05	B5I0013
"	"	"
"	"	"
"	"	"
08/31/05	08/31/05	B5H0729
08/29/05	08/29/05	B5I0013
"	"	"
"	"	"
"	"	"
08/29/05	08/29/05	B5I0013

"	"	"
"	"	"
"	"	"

Lab No: 5081018
Reported: 09/07/05
Phone: (707) 825-5189
P.O. #

Analyzed	Prepared	Batch
08/28/05	08/24/05	B5H0672
"	"	"
08/28/05	08/24/05	B5H0672
"	"	"
08/28/05	08/24/05	B5H0672
"	"	"
08/28/05	08/24/05	B5H0672
"	"	"
08/28/05	08/24/05	B5H0672
"	"	"
08/28/05	08/24/05	B5H0672
"	"	"
08/28/05	08/24/05	B5H0672
"	"	"
08/28/05	08/24/05	B5H0672
"	"	"
08/28/05	08/24/05	B5H0672
"	"	"

08/28/05	08/24/05	B5H0672
"	"	"
08/28/05	08/24/05	B5H0672
"	"	"
08/28/05	08/24/05	B5H0672
"	"	"

Lab No: 5081018
Reported: 09/07/05
Phone: (707) 825-5189
P.O. #

RPD	RPD Limit	Qualifier
0.108	20	
0.122	20	

5.41	20
0.00	20
0.548	20
	20
18.2	20

Lab No: 5081018
Reported: 09/07/05
Phone: (707) 825-5189
P.O. #

stimated Concentration flag.

Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521
Attention: CHRIS CURRENS
Project: NPS - BASELINE WATER QUALITY INVENTORY

General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL	Method
SILVER LAKE 1 Surface Water (5081172-01) Sampled:08/29/05 18:00 Received:08/30/05 15:05						
pH	pH Units	**7.10**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**4**	J	2	5	SM 23
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**5**		2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	**3**	J	2	10	SM 25
SILVER LAKE 2 Surface Water (5081172-02) Sampled:08/29/05 18:00 Received:08/30/05 15:05						
pH	pH Units	**7.14**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**4**	J	2	5	SM 23
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**5**		2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	**3**	J	2	10	SM 25
FEATHER LAKE 1 Surface Water (5081172-03) Sampled:08/29/05 18:40 Received:08/30/05 15:05						
pH	pH Units	**6.50**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**3**	J	2	5	SM 23
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**4**	J	2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	ND		2	10	SM 2510B
FEATHER LAKE 2 Surface Water (5081172-04) Sampled:08/29/05 18:40 Received:08/30/05 15:05						
pH	pH Units	**6.50**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**3**	J	2	5	SM 23
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**4**	J	2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	ND		2	10	SM 2510B
RAINBOW LAKE 1 Surface Water (5081172-05) Sampled:08/30/05 08:30 Received:08/30/05 15:05						
pH	pH Units	**7.19**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**12**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**15**		2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	**8**	J	2	10	SM 25
RAINBOW LAKE 2 Surface Water (5081172-06) Sampled:08/30/05 08:30 Received:08/30/05 15:05						
pH	pH Units	**7.15**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**12**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**15**		2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	**9**	J	2	10	SM 25
UPPER TWIN LAKE 1 Surface Water (5081172-07) Sampled:08/30/05 09:30 Received:08/30/05 15:05						
pH	pH Units	**6.63**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**3**	J	2	5	SM 23
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**4**	J	2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	ND		2	10	SM 2510B
UPPER TWIN LAKE 2 Surface Water (5081172-08) Sampled:08/30/05 09:30 Received:08/30/05 15:05						
pH	pH Units	**6.68**		0.01	0.01	SM 4500H+

Approved By

Basic Laboratory, Inc.

California D.O.H.S. Cert #1677

Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY

General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL	Method
UPPER TWIN LAKE 2 Surface Water (5081172-08) Sampled:08/30/05 09:30 Received:08/30/05 15:05						
Alkalinity as CaCO3	mg/l	**3**	J	2	5	SM 23
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**4**	J	2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	ND		2	10	SM 2510B
LOWER TWIN LAKE 1 Surface Water (5081172-12) Sampled:08/30/05 10:30 Received:08/30/05 15:05						
pH	pH Units	**7.00**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**5**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**6**		2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	**4**	J	2	10	SM 25
LOWER TWIN LAKE 2 Surface Water (5081172-13) Sampled:08/30/05 10:30 Received:08/30/05 15:05						
pH	pH Units	**6.93**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**5**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**6**		2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	**4**	J	2	10	SM 25

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1655 HEINDEN RD
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Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY

Microbiology

Analyte	Units	Results	Qualifier	MDL	RL	Method
UPPER TWIN LAKE 1 Surface Water (5081172-09) Sampled:08/30/05 09:30 Received:08/30/05 15:05						
Total Coliforms	MPN/100 ml	**5**			2	SM 9221B/E
Fecal Coliforms	"	<2			2	"
UPPER TWIN LAKE 2 Surface Water (5081172-10) Sampled:08/30/05 09:30 Received:08/30/05 15:05						
Total Coliforms	MPN/100 ml	<2			2	SM 9221B/E
Fecal Coliforms	"	<2			2	"
UPPER TWIN LAKE 3 Surface Water (5081172-11) Sampled:08/30/05 09:30 Received:08/30/05 15:05						
Total Coliforms	MPN/100 ml	**6**			2	SM 9221B/E
Fecal Coliforms	"	<2			2	"
LOWER TWIN LAKE 1 Surface Water (5081172-14) Sampled:08/30/05 10:30 Received:08/30/05 15:05						
Total Coliforms	MPN/100 ml	**23**			2	SM 9221B/E
Fecal Coliforms	"	<2			2	"
LOWER TWIN LAKE 2 Surface Water (5081172-15) Sampled:08/30/05 10:30 Received:08/30/05 15:05						
Total Coliforms	MPN/100 ml	**7**			2	SM 9221B/E

Fecal Coliforms		"	<2		2	"
LOWER TWIN LAKE 3	**Surface Water**	**(5081172-16)**	**Sampled:08/30/05 10:30**	**Received:08/30/05 15:05**		
Total Coliforms		MPN/100 ml	**5**		2	SM 9221B/E
Fecal Coliforms		"	<2		2	"

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Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY

Quality Control Data

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits
General Chemistry							
Batch B5H0699 - General Prep - GC							
LCS							
pH	7.03		pH Units	7.00		100	80-120
Duplicate **Source: 5081164-01**							
pH	8.18	0.01	pH Units		8.17		

Duplicate	**Source: 5081172-08**							
pH		6.69	0.01	pH Units		6.68		
Batch B5I0054 - General Prep - GC								
Blank								
Specific Conductance		ND	10	umhos/cm				
LCS								
Specific Conductance		102		umhos/cm	100		102	80-120
Duplicate	**Source: 5080826-01**							
Specific Conductance		241	10	umhos/cm		241		
Duplicate	**Source: 5081172-06**							
Specific Conductance		9.00	10	umhos/cm		9		
Batch B5I0104 - General Prep - GC								
Blank								
Alkalinity as CaCO3		ND	5	mg/l				
Hydroxide		ND	5	mg/l				
Bicarbonate		ND	5	mg/l				
Carbonate		ND	5	mg/l				
LCS								
Alkalinity as CaCO3		0.05		mg/l	0.0500		100	80-120
Duplicate	**Source: 5081172-01**							
Alkalinity as CaCO3		4.0	5	mg/l		4		
Duplicate	**Source: 5081191-01**							
Alkalinity as CaCO3		452	10	mg/l		452		

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Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY

Notes and Definitions

J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag). The J flag is equivalent to the DNQ Estima
A-01	<2
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the detection limit

NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
<	Less than reporting limit
≤	Less than or equal to reporting limit
>	Greater than reporting limit
≥	Greater than or equal to reporting limit
MDL	Method Detection Limit
RL/ML	Minimum Level of Quantitation
MCL/AL	Maxium Contaminant Level/Action Level
mg/kg	Results reported as wet weight
TTLC	Total Threshold Limit Concentration
STLC	Soluble Threshold Limit Concentration
TCLP	Toxicity Characteristic Leachate Procedure

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Basic Laboratory, Inc.

California D.O.H.S. Cert #1677

Lab No: 5081172
Reported: 09/08/05
Phone: (707) 825-5189
P.O. #

	Analyzed	Prepared	Batch	
	08/30/05	08/30/05	B5H0699	
20B		09/06/05	09/06/05	B5I0104
	"	"	"	
	"	"	"	
	"	"	"	
10B		09/02/05	09/02/05	B5I0054
	08/30/05	08/30/05	B5H0699	
20B		09/06/05	09/06/05	B5I0104
	"	"	"	
	"	"	"	
	"	"	"	
10B		09/02/05	09/02/05	B5I0054
	08/30/05	08/30/05	B5H0699	
20B		09/06/05	09/06/05	B5I0104
	"	"	"	
		"	"	"
	"	"	"	
	09/02/05	09/02/05	B5I0054	
	08/30/05	08/30/05	B5H0699	
20B		09/06/05	09/06/05	B5I0104
	"	"	"	
		"	"	"
	"	"	"	
	09/02/05	09/02/05	B5I0054	
	08/30/05	08/30/05	B5H0699	
	09/06/05	09/06/05	B5I0104	
	"	"	"	
	"	"	"	
	"	"	"	
10B		09/02/05	09/02/05	B5I0054
	08/30/05	08/30/05	B5H0699	
	09/06/05	09/06/05	B5I0104	
	"	"	"	
	"	"	"	
	"	"	"	
10B		09/02/05	09/02/05	B5I0054
	08/30/05	08/30/05	B5H0699	
20B		09/06/05	09/06/05	B5I0104
	"	"	"	
		"	"	"
	"	"	"	
	09/02/05	09/02/05	B5I0054	
	08/30/05	08/30/05	B5H0699	

Lab No: 5081172
Reported: 09/08/05
Phone: (707) 825-5189
P.O. #

	Analyzed	Prepared	Batch	
20B		09/06/05	09/06/05	B5I0104
	"	"	"	
		"	"	"
	"	"	"	
	09/02/05	09/02/05	B5I0054	
	08/30/05	08/30/05	B5H0699	
	09/06/05	09/06/05	B5I0104	
	"	"	"	
	"	"	"	
	"	"	"	
10B		09/02/05	09/02/05	B5I0054
	08/30/05	08/30/05	B5H0699	
	09/06/05	09/06/05	B5I0104	
	"	"	"	
	"	"	"	
	"	"	"	
10B		09/02/05	09/02/05	B5I0054

Lab No: 5081172
Reported: 09/08/05
Phone: (707) 825-5189
P.O. #

Analyzed	Prepared	Batch
09/03/05	08/30/05	B5I0101
"	"	"
09/03/05	08/30/05	B5I0101
"	"	"
09/03/05	08/30/05	B5I0101
"	"	"
09/03/05	08/30/05	B5I0101
"	"	"
09/03/05	08/30/05	B5I0101

"	"	"
09/03/05	08/30/05	B5I0101
"	"	"

Lab No: 5081172
Reported: 09/08/05
Phone: (707) 825-5189
P.O. #

RPD	RPD Limit	Qualifier
0.122	20	

0.150	20	
0.00	20	
0.00	20	J
0.00	20	J
0.00	20	

Lab No: 5081172
Reported: 09/08/05
Phone: (707) 825-5189
P.O. #

ted Concentration flag.

Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521
Attention: CHRIS CURRENS
Project: NPS - BASELINE WATER QUALITY INVENTORY Lassen WQ

General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL
CRUMBAUGH LAKE 1 Water (5081201-01) Sampled:08/31/05 09:30 Received:08/31/05 15:01					
pH	pH Units	**6.92**		0.01	0.01
Alkalinity as CaCO3	mg/l	**5**		2	5
Hydroxide	"	ND		2	5
Bicarbonate	"	**6**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**36**		2	10
CRUMBAUGH LAKE 2 Water (5081201-02) Sampled:08/31/05 09:30 Received:08/31/05 15:01					
Alkalinity as CaCO3	mg/l	**5**		2	5
Hydroxide	"	ND		2	5
Bicarbonate	"	**6**		2	5
Carbonate	"	ND		2	5
CRUMBAUGH LAKE 3 Water (5081201-03) Sampled:08/31/05 09:30 Received:08/31/05 15:01					
Alkalinity as CaCO3	mg/l	**5**		2	5
Hydroxide	"	ND		2	5
Bicarbonate	"	**6**		2	5
Carbonate	"	ND		2	5
TERRACE 1 Water (5081201-07) Sampled:08/31/05 10:30 Received:08/31/05 15:01					
pH	pH Units	**6.02**		0.01	0.01
Alkalinity as CaCO3	mg/l	ND		2	5
Hydroxide	"	ND		2	5
Bicarbonate	"	ND		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	ND		2	10
TERRACE 2 Water (5081201-08) Sampled:08/31/05 10:30 Received:08/31/05 15:01					
Alkalinity as CaCO3	mg/l	ND		2	5
Hydroxide	"	ND		2	5
Bicarbonate	"	ND		2	5
Carbonate	"	ND		2	5
TERRACE 3 Water (5081201-09) Sampled:08/31/05 10:30 Received:08/31/05 15:01					
Alkalinity as CaCO3	mg/l	**2**	J	2	5
Hydroxide	"	ND		2	5
Bicarbonate	"	**2**	J	2	5
Carbonate	"	ND		2	5
BUTTE 1 Water (5081201-13) Sampled:08/31/05 13:00 Received:08/31/05 15:01					
pH	pH Units	**8.75**		0.01	0.01
Alkalinity as CaCO3	mg/l	**26**		2	5
Hydroxide	"	ND		2	5
Bicarbonate	"	**32**		2	5
Carbonate	"	ND		2	5
Specific Conductance	umhos/cm	**49**		2	10
BUTTE 2 Water (5081201-14) Sampled:08/31/05 13:00 Received:08/31/05 15:01					
Alkalinity as CaCO3	mg/l	**27**		2	5
Hydroxide	"	ND		2	5
Bicarbonate	"	**33**		2	5
Carbonate	"	ND		2	5
BUTTE 3 Water (5081201-15) Sampled:08/31/05 13:00 Received:08/31/05 15:01					
Alkalinity as CaCO3	mg/l	**27**		2	5
Hydroxide	"	ND		2	5
Bicarbonate	"	**33**		2	5

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Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY Lassen WQ

General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL
BUTTE 3 Water (5081201-15) Sampled:08/31/05 13:00 Received:08/31/05 15:01					
Carbonate	"	ND		2	5

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Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY Lassen WQ

Microbiology

Analyte	Units	Results	Qualifier	MDL	RL	
CRUMBAUGH LAKE 1 Water (5081201-04) Sampled:08/31/05 09:30 Received:08/31/05 15:01						
Total Coliforms	MPN/100 ml	**17**			2	
Fecal Coliforms	"	<2			2	
CRUMBAUGH LAKE 2 Water (5081201-05) Sampled:08/31/05 09:30 Received:08/31/05 15:01						
Total Coliforms	MPN/100 ml	**13**			2	
Fecal Coliforms	"	<2			2	
CRUMBAUGH LAKE 3 Water (5081201-06) Sampled:08/31/05 09:30 Received:08/31/05 15:01						
Total Coliforms	MPN/100 ml	**8**			2	
Fecal Coliforms	"	<2			2	
TERRACE 1 Water (5081201-10) Sampled:08/31/05 10:30 Received:08/31/05 15:01						
Total Coliforms	MPN/100 ml	**2**			2	
Fecal Coliforms	"	<2			2	
TERRACE 2 Water (5081201-11) Sampled:08/31/05 10:30 Received:08/31/05 15:01						
Total Coliforms	MPN/100 ml	**2**			2	
Fecal Coliforms	"	<2			2	
TERRACE 3 Water (5081201-12) Sampled:08/31/05 10:30 Received:08/31/05 15:01						
Total Coliforms	MPN/100 ml	**8**			2	
Fecal Coliforms	"	<2			2	
BUTTE 1 Water (5081201-16) Sampled:08/31/05 13:00 Received:08/31/05 15:01						
Total Coliforms	MPN/100 ml	**2**			2	
Fecal Coliforms	"	<2			2	
BUTTE 2 Water (5081201-17) Sampled:08/31/05 13:00 Received:08/31/05 15:01						
Total Coliforms	MPN/100 ml	**4**			2	
Fecal Coliforms	"	<2			2	
BUTTE 3 Water (5081201-18) Sampled:08/31/05 13:00 Received:08/31/05 15:01						
Total Coliforms	MPN/100 ml	<2			2	
Fecal Coliforms	"	<2			2	

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Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY Lassen WQ

Quality Control Data

Analyte	Result	RL	Units	Spike Level	Source Result	%REC
General Chemistry						
Batch B5H0739 - General Prep - GC						
LCS						
pH	7.01		pH Units	7.00		100
Duplicate **Source: 5081199-01**						
pH	7.54	0.01	pH Units		7.53	
Batch B5I0055 - General Prep - GC						
Blank						
Specific Conductance	ND	10	umhos/cm			
LCS						
Specific Conductance	99.0		umhos/cm	100		99.0
Duplicate **Source: 5081201-01**						
Specific Conductance	40.0	10	umhos/cm		36	
Batch B5I0106 - General Prep - GC						
Blank						
Alkalinity as CaCO3	ND	5	mg/l			
Hydroxide	ND	5	mg/l			

Bicarbonate		ND	5	mg/l			
Carbonate		ND	5	mg/l			
LCS							
Alkalinity as CaCO3		0.05		mg/l	0.0500		100
Duplicate	**Source: 5090055-01**						
Alkalinity as CaCO3		23.0	5	mg/l		23	
Duplicate	**Source: 5090055-11**						
Alkalinity as CaCO3		6.0	5	mg/l		6	
Batch B5I0284 - General Prep - GC							
Blank							
Alkalinity as CaCO3		ND	5	mg/l			
Hydroxide		ND	5	mg/l			
Bicarbonate		ND	5	mg/l			
Carbonate		ND	5	mg/l			
LCS							
Alkalinity as CaCO3		0.05		mg/l	0.0500		100
Duplicate	**Source: 5081201-15**						
Alkalinity as CaCO3		27.0	5	mg/l		27	
Duplicate	**Source: 5090334-04**						
Alkalinity as CaCO3		373	5	mg/l		373	

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Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY Lassen WQ

Notes and Definitions

J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag). The J flag is equivalent to the DNQ Est
A-01	<2
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the detection limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
<	Less than reporting limit
≤	Less than or equal to reporting limit
>	Greater than reporting limit
≥	Greater than or equal to reporting limit
MDL	Method Detection Limit
RL/ML	Minimum Level of Quantitation

MCL/AL	Maxium Contaminant Level/Action Level
mg/kg	Results reported as wet weight
TTLC	Total Threshold Limit Concentration
STLC	Soluble Threshold Limit Concentration
TCLP	Toxicity Characteristic Leachate Procedure

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California D.O.H.S. Cert #1677

Lab No: 5081201
Reported: 09/15/05
Phone: (707) 825-5189
P.O. # 05WRSA0410

Method	Analyzed	Prepared	Batch
SM 4500H+	08/31/05	08/31/05	B5H0739
SM 2320B	09/06/05	09/06/05	B5I0106
"	"	"	"
"	"	"	"
"	"	"	"
SM 2510B	09/02/05	09/02/05	B5I0055
SM 2320B	09/06/05	09/06/05	B5I0106
"	"	"	"
"	"	"	"
"	"	"	"
SM 2320B	09/06/05	09/06/05	B5I0106
"	"	"	"
"	"	"	"
"	"	"	"
SM 4500H+	08/31/05	08/31/05	B5H0739
SM 2320B	09/06/05	09/06/05	B5I0106
"	"	"	"
"	"	"	"
"	"	"	"
SM 2510B	09/02/05	09/02/05	B5I0055
SM 2320B	09/06/05	09/06/05	B5I0106
"	"	"	"
"	"	"	"
"	"	"	"
SM 2320B	09/06/05	09/06/05	B5I0106
"	"	"	"
"	"	"	"
"	"	"	"
SM 4500H+	08/31/05	08/31/05	B5H0739
SM 2320B	09/06/05	09/06/05	B5I0106
"	"	"	"
"	"	"	"
"	"	"	"
SM 2510B	09/02/05	09/02/05	B5I0055
SM 2320B	09/06/05	09/06/05	B5I0106
"	"	"	"
"	"	"	"
"	"	"	"
SM 2320B	09/13/05	09/13/05	B5I0284
"	"	"	"
"	"	"	"

Lab No: 5081201
Reported: 09/15/05
Phone: (707) 825-5189
P.O. # 05WRSA0410

Method	Analyzed	Prepared	Batch
"	"	09/13/05	"

Lab No: 5081201
Reported: 09/15/05
Phone: (707) 825-5189
P.O. # 05WRSA0410

Method	Analyzed	Prepared	Batch
SM 9221B/E	09/05/05	08/31/05	B5I0101
"	"	"	"
SM 9221B/E	09/05/05	08/31/05	B5I0101
"	"	"	"
SM 9221B/E	09/05/05	08/31/05	B5I0101
"	"	"	"
SM 9221B/E	09/05/05	08/31/05	B5I0101
"	"	"	"
SM 9221B/E	09/05/05	08/31/05	B5I0101
"	"	"	"
SM 9221B/E	09/05/05	08/31/05	B5I0101
"	"	"	"
SM 9221B/E	09/05/05	08/31/05	B5I0101
"	"	"	"
SM 9221B/E	09/05/05	08/31/05	B5I0101
"	"	"	"
SM 9221B/E	09/05/05	08/31/05	B5I0101
"	"	"	"

Lab No: 5081201
Reported: 09/15/05
Phone: (707) 825-5189
P.O. # 05WRSA0410

%REC Limits	RPD	RPD Limit	Qualifier
80-120			
	0.133	20	
80-120			
	10.5	20	

80-120		
	0.00	20
	0.00	20
80-120		
	0.00	20
	0.00	20

Lab No: 5081201
Reported: 09/15/05
Phone: (707) 825-5189
P.O. # 05WRSA0410

imated Concentration flag.

Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521
Attention: CHRIS CURRENS
Project: NPS - BASELINE WATER QUALITY INVENTORY

General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL	Me
JAKEY LAKE #1 Water (5070874-01) Sampled:07/25/05 18:00 Received:07/26/05 14:59						
Alkalinity as CaCO3	mg/l	**8**		2	5	SM 2
Hydroxide Alkalinity	"	ND		2	5	
Bicarbonate	"	**10**		2	5	
Carbonate	"	ND		2	5	
JAKEY LAKE #2 Water (5070874-02) Sampled:07/25/05 18:00 Received:07/26/05 14:59						
pH	pH Units	**7.56**		0.01	0.01	SM 4
Alkalinity as CaCO3	mg/l	**8**		2	5	SM 2
Hydroxide Alkalinity	"	ND		2	5	
Bicarbonate	"	**9**		2	5	
Carbonate	"	ND		2	5	
Specific Conductance	umhos/cm	**12**		2	10	SM 2
JAKEY LAKE #3 Water (5070874-03) Sampled:07/25/05 18:00 Received:07/26/05 14:59						
Alkalinity as CaCO3	mg/l	**8**		2	5	SM 2
Hydroxide Alkalinity	"	ND		2	5	
Bicarbonate	"	**10**		2	5	
Carbonate	"	ND		2	5	
HORSESHOE LAKE #1 Water (5070874-04) Sampled:07/26/05 09:00 Received:07/26/05 14:59						
Alkalinity as CaCO3	mg/l	**18**		2	5	SM 2
Hydroxide Alkalinity	"	ND		2	5	
Bicarbonate	"	**21**		2	5	
Carbonate	"	ND		2	5	
HORSESHOE LAKE #2 Water (5070874-05) Sampled:07/26/05 09:00 Received:07/26/05 14:59						
pH	pH Units	**7.69**		0.01	0.01	SM 4
Alkalinity as CaCO3	mg/l	**18**		2	5	SM 2
Hydroxide Alkalinity	"	ND		2	5	
Bicarbonate	"	**21**		2	5	
Carbonate	"	ND		2	5	
Specific Conductance	umhos/cm	**30**		2	10	SM 2
HORSESHOE LAKE #3 Water (5070874-06) Sampled:07/26/05 09:00 Received:07/26/05 14:59						
Alkalinity as CaCO3	mg/l	**17**		2	5	SM 2
Hydroxide Alkalinity	"	ND		2	5	
Bicarbonate	"	**21**		2	5	
Carbonate	"	ND		2	5	
CRYSTAL LAKE #1 Water (5070874-07) Sampled:07/26/05 09:00 Received:07/26/05 14:59						
Alkalinity as CaCO3	mg/l	**6**		2	5	SM 2
Hydroxide Alkalinity	"	ND		2	5	
Bicarbonate	"	**7**		2	5	
Carbonate	"	ND		2	5	
CRYSTAL LAKE #2 Water (5070874-08) Sampled:07/26/05 09:00 Received:07/26/05 14:59						
pH	pH Units	**7.20**		0.01	0.01	SM 4
Alkalinity as CaCO3	mg/l	**5**		2	5	SM 2
Hydroxide Alkalinity	"	ND		2	5	
Bicarbonate	"	**6**		2	5	
Carbonate	"	ND		2	5	
Specific Conductance	umhos/cm	**7**	J	2	10	
CRYSTAL LAKE #3 Water (5070874-09) Sampled:07/26/05 09:00 Received:07/26/05 14:59						
Alkalinity as CaCO3	mg/l	**6**		2	5	SM 2
Hydroxide Alkalinity	"	ND		2	5	
Bicarbonate	"	**7**		2	5	

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Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY

General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL	Me
CRYSTAL LAKE #3 Water (5070874-09) Sampled:07/26/05 09:00 Received:07/26/05 14:59						
Carbonate	"	ND		2	5	
JUNIPER LAKE #1 Water (5070874-10) Sampled:07/26/05 09:00 Received:07/26/05 14:59						
Alkalinity as CaCO3	mg/l	**7**		2	5	SM 2
Hydroxide Alkalinity	"	ND		2	5	
Bicarbonate	"	**9**		2	5	
Carbonate	"	ND		2	5	
JUNIPER LAKE #2 Water (5070874-11) Sampled:07/26/05 09:00 Received:07/26/05 14:59						
pH	pH Units	**7.00**		0.01	0.01	SM 4
Alkalinity as CaCO3	mg/l	**7**		2	5	SM 2
Hydroxide Alkalinity	"	ND		2	5	
Bicarbonate	"	**9**		2	5	
Carbonate	"	ND		2	5	
Specific Conductance	umhos/cm	**9**	J	2	10	
JUNIPER LAKE #3 Water (5070874-12) Sampled:07/26/05 09:00 Received:07/26/05 14:59						
Alkalinity as CaCO3	mg/l	**7**		2	5	SM 2
Hydroxide Alkalinity	"	ND		2	5	
Bicarbonate	"	**9**		2	5	
Carbonate	"	ND		2	5	

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Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY

Microbiology

Analyte	Units	Results	Qualifier	MDL	RL	Me
HORSESHOE LAKE #1 Water (5070874-04) Sampled:07/26/05 09:00 Received:07/26/05 14:59						
Total Coliforms	MPN/100 ml	**5**			2	SM 9
Fecal Coliforms	"	<2			2	
HORSESHOE LAKE #2 Water (5070874-05) Sampled:07/26/05 09:00 Received:07/26/05 14:59						
Total Coliforms	MPN/100 ml	**33**			2	SM 9
Fecal Coliforms	"	<2			2	
HORSESHOE LAKE #3 Water (5070874-06) Sampled:07/26/05 09:00 Received:07/26/05 14:59						
Total Coliforms	MPN/100 ml	**17**			2	SM 9
Fecal Coliforms	"	<2			2	
CRYSTAL LAKE #1 Water (5070874-07) Sampled:07/26/05 09:00 Received:07/26/05 14:59						
Total Coliforms	MPN/100 ml	**70**			2	SM 9
Fecal Coliforms	"	**2**			2	
CRYSTAL LAKE #2 Water (5070874-08) Sampled:07/26/05 09:00 Received:07/26/05 14:59						
Total Coliforms	MPN/100 ml	**8**			2	SM 9

Fecal Coliforms		"	**2**		2		
CRYSTAL LAKE #3 Water (5070874-09) Sampled:07/26/05 09:00 Received:07/26/05 14:59							
Total Coliforms		MPN/100 ml	**11**		2	SM 9	
Fecal Coliforms		"	<2		2		
JUNIPER LAKE #1 Water (5070874-10) Sampled:07/26/05 09:00 Received:07/26/05 14:59							
Total Coliforms		MPN/100 ml	**13**		2	SM 9	
Fecal Coliforms		"	<2		2		
JUNIPER LAKE #2 Water (5070874-11) Sampled:07/26/05 09:00 Received:07/26/05 14:59							
Total Coliforms		MPN/100 ml	**13**		2	SM 9	
Fecal Coliforms		"	<2		2		
JUNIPER LAKE #3 Water (5070874-12) Sampled:07/26/05 09:00 Received:07/26/05 14:59							
Total Coliforms		MPN/100 ml	**17**		2	SM 9	
Fecal Coliforms		"	<2		2		

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1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY

Quality Control Data

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	% L
General Chemistry							
Batch B5G0537 - General Prep - GC							
LCS							
pH	7.03		pH	7.00		100	8
Duplicate **Source: 5070870-01**							

pH		7.80	0.01	pH Units		7.82		
Batch B5G0548 - General Prep - GC								
Blank								
Alkalinity as CaCO3		ND	5	mg/l				
Hydroxide Alkalinity		ND	5	mg/l				
Bicarbonate		ND	5	mg/l				
Carbonate		ND	5	mg/l				
LCS								
Alkalinity as CaCO3		0.05		mg/l	0.0500		100	8
Duplicate	**Source: 5070659-02**							
Alkalinity as CaCO3		107	5	mg/l		108		
Duplicate	**Source: 5070874-03**							
Alkalinity as CaCO3		8.0	5	mg/l		8		
Batch B5G0581 - General Prep - GC								
Blank								
Specific Conductance		ND	10	umhos/				
LCS								
Specific Conductance		106		umhos/	100		106	8
Duplicate	**Source: 5070752-01**							
Specific Conductance		973	10	umhos/		970		
Duplicate	**Source: 5070877-02**							
Specific Conductance		78.0	10	umhos/		78		

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Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY

Notes and Definitions

J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag). The J flag is equivalent to the
A-01	<2
DET	Analyte DETECTED

ND	Analyte NOT DETECTED at or above the detection limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
<	Less than reporting limit
≤	Less than or equal to reporting limit
>	Greater than reporting limit
≥	Greater than or equal to reporting limit
MDL	Method Detection Limit
RL/ML	Minimum Level of Quantitation
MCL/AL	Maxium Contaminant Level/Action Level
mg/kg	Results reported as wet weight
TTLC	Total Threshold Limit Concentration
STLC	Soluble Threshold Limit Concentration
TCLP	Toxicity Characteristic Leachate Procedure

Approved By

Basic Laboratory, Inc.

California D.O.H.S. Cert #1677

Lab No: 5070874
Reported: 08/02/05
Phone: (707) 825-5189
P.O. #

thod	Analyzed	Prepared	Batch	
2320B	07/27/05	07/27/05	B5G0548	
"	"	"	"	
"	"	"	"	
"	"	"	"	
4500H+	07/26/05	07/26/05	B5G0537	
2320B	07/27/05	07/27/05	B5G0548	
"	"	"	"	
"	"	"	"	
"	"	"	"	
2510B	07/28/05	07/28/05	B5G0581	
2320B	07/27/05	07/27/05	B5G0548	
"	"	"	"	
"	"	"	"	
"	"	"	"	
2320B	07/27/05	07/27/05	B5G0548	
"	"	"	"	
"	"	"	"	
"	"	"	"	
4500H+	07/26/05	07/26/05	B5G0537	
2320B	07/27/05	07/27/05	B5G0548	
"	"	"	"	
"	"	"	"	
"	"	"	"	
2510B	07/28/05	07/28/05	B5G0581	
2320B	07/27/05	07/27/05	B5G0548	
"	"	"	"	
"	"	"	"	
"	"	"	"	
2320B	07/27/05	07/27/05	B5G0548	
"	"	"	"	
"	"	"	"	
"	"	"	"	
4500H+	07/26/05	07/26/05	B5G0537	
2320B	07/27/05	07/27/05	B5G0548	
"	"	"	"	
"	"	"	"	
"	"	"	"	
SM 2510B		07/28/05	07/28/05	B5G0581
2320B	07/27/05	07/27/05	B5G0548	
"	"	"	"	
"	"	"	"	

Lab No: 5070874
Reported: 08/02/05
Phone: (707) 825-5189
P.O. #

thod	Analyzed	Prepared	Batch	
"	"	07/27/05	"	
2320B	07/27/05	07/27/05	B5G0548	
"	"	"	"	
"	"	"	"	
"	"	"	"	
5500H+	07/26/05	07/26/05	B5G0537	
2320B	07/27/05	07/27/05	B5G0548	
"	"	"	"	
"	"	"	"	
"	"	"	"	
SM 2510B		07/28/05	07/28/05	B5G0581
2320B	07/27/05	07/27/05	B5G0548	
"	"	"	"	
"	"	"	"	
"	"	"	"	

Lab No: 5070874
Reported: 08/02/05
Phone: (707) 825-5189
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thod	Analyzed	Prepared	Batch
221B/E	07/30/05	07/26/05	B5H0011
"	"	"	"
221B/E	07/30/05	07/26/05	B5H0011
"	"	"	"
221B/E	07/30/05	07/26/05	B5H0011
"	"	"	"
221B/E	07/30/05	07/26/05	B5H0011
"	"	"	"
221B/E	07/30/05	07/26/05	B5H0011

"	"	"	"
221B/E	07/30/05	07/26/05	B5H0011
"	"	"	"
221B/E	07/30/05	07/26/05	B5H0011
"	"	"	"
221B/E	07/30/05	07/26/05	B5H0011
"	"	"	"
221B/E	07/30/05	07/26/05	B5H0011
"	"	"	"

Lab No: 5070874
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Phone: (707) 825-5189
P.O. #

%REC Limits	RPD	RPD Limit	Qualifier
80-120			

	0.256	20
30-120		
	0.930	20
	0.00	20
30-120		
	0.309	20
	0.00	20

Lab No: 5070874
Reported: 08/02/05
Phone: (707) 825-5189
P.O. #

DNQ Estimated Concentration flag.

Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521
Attention: CHRIS CURRENS
Project: NPS - BASELINE WATER QUALITY INVENTORY

General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL	Method
EMERALD LAKE Water (5070902-01) Sampled:07/27/05 08:30 Received:07/27/05 13:43						
Alkalinity as CaCO3	mg/l	**6**		2	5	SM 2320B
Hydroxide Alkalinity	"	ND		2	5	"
Bicarbonate	"	**7**		2	5	"
Carbonate	"	ND		2	5	"
EMERALD LAKE Water (5070902-02) Sampled:07/27/05 08:30 Received:07/27/05 13:43						
pH	pH Units	**6.70**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**6**		2	5	SM 2320B
Hydroxide Alkalinity	"	ND		2	5	"
Bicarbonate	"	**7**		2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	**10**		2	10	SM 2510B
EMERALD LAKE Water (5070902-03) Sampled:07/27/05 08:30 Received:07/27/05 13:43						
Alkalinity as CaCO3	mg/l	**6**		2	5	SM 2320B
Hydroxide Alkalinity	"	ND		2	5	"
Bicarbonate	"	**7**		2	5	"
Carbonate	"	ND		2	5	"
LAKE HELEN Water (5070902-04) Sampled:07/27/05 09:00 Received:07/27/05 13:43						
Alkalinity as CaCO3	mg/l	**3**	J	2	5	SM 2320E
Hydroxide Alkalinity	"	ND		2	5	"
Bicarbonate	"	**4**	J	2	5	"
Carbonate	"	ND		2	5	"
LAKE HELEN Water (5070902-05) Sampled:07/27/05 09:00 Received:07/27/05 13:43						
pH	pH Units	**6.13**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**3**	J	2	5	SM 2320E
Hydroxide Alkalinity	"	ND		2	5	"
Bicarbonate	"	**4**	J	2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	ND		2	10	SM 2510B
LAKE HELEN Water (5070902-06) Sampled:07/27/05 09:00 Received:07/27/05 13:43						
Alkalinity as CaCO3	mg/l	**3**	J	2	5	SM 2320E
Hydroxide Alkalinity	"	ND		2	5	"
Bicarbonate	"	**4**	J	2	5	"
Carbonate	"	ND		2	5	"
RIDGE LAKE Water (5070902-07) Sampled:07/26/05 15:00 Received:07/27/05 13:43						
pH	pH Units	**6.10**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**3**	J	2	5	SM 2320E
Hydroxide Alkalinity	"	ND		2	5	"
Bicarbonate	"	**4**	J	2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	**97**		2	10	SM 2510B
CRUMBAUGH LAKE Water (5070902-08) Sampled:07/27/05 11:00 Received:07/27/05 13:43						
Alkalinity as CaCO3	mg/l	**4**	J	2	5	SM 2320E
Hydroxide Alkalinity	"	ND		2	5	"
Bicarbonate	"	**5**		2	5	"
Carbonate	"	ND		2	5	"
CRUMBAUGH LAKE Water (5070902-09) Sampled:07/27/05 11:00 Received:07/27/05 13:43						
pH	pH Units	**6.35**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**4**	J	2	5	SM 2320E
Hydroxide Alkalinity	"	ND		2	5	"

Approved By

Basic Laboratory, Inc.

California D.O.H.S. Cert #1677

Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY

General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL	Method
CRUMBAUGH LAKE Water (5070902-09) Sampled:07/27/05 11:00 Received:07/27/05 13:43						
Bicarbonate	"	**5**		2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	**34**		2	10	SM 2510B
CRUMBAUGH LAKE Water (5070902-10) Sampled:07/27/05 11:00 Received:07/27/05 13:43						
Alkalinity as CaCO3	mg/l	**4**	J	2	5	SM 2320E
Hydroxide Alkalinity	"	ND		2	5	"
Bicarbonate	"	**5**		2	5	"
Carbonate	"	ND		2	5	"
TERRACE LAKE Water (5070902-11) Sampled:07/27/05 12:30 Received:07/27/05 13:43						
Alkalinity as CaCO3	mg/l	ND		2	5	SM 2320B
Hydroxide Alkalinity	"	ND		2	5	"
Bicarbonate	"	ND		2	5	"
Carbonate	"	ND		2	5	"
TERRACE LAKE Water (5070902-12) Sampled:07/27/05 12:30 Received:07/27/05 13:43						
pH	pH Units	**5.88**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	ND		2	5	SM 2320B
Hydroxide Alkalinity	"	ND		2	5	"
Bicarbonate	"	ND		2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	ND		2	10	SM 2510B
TERRACE LAKE Water (5070902-13) Sampled:07/27/05 12:30 Received:07/27/05 13:43						
Alkalinity as CaCO3	mg/l	ND		2	5	SM 2320B
Hydroxide Alkalinity	"	ND		2	5	"
Bicarbonate	"	ND		2	5	"
Carbonate	"	ND		2	5	"

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Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY

Microbiology

Analyte	Units	Results	Qualifier	MDL	RL	Method
EMERALD LAKE Water (5070902-01) Sampled:07/27/05 08:30 Received:07/27/05 13:43						
Total Coliforms	MPN/100 ml	**5**			2	SM 9221B/E
Fecal Coliforms	"	<2			2	"
EMERALD LAKE Water (5070902-02) Sampled:07/27/05 08:30 Received:07/27/05 13:43						
Total Coliforms	MPN/100 ml	**8**			2	SM 9221B/E
Fecal Coliforms	"	<2			2	"
EMERALD LAKE Water (5070902-03) Sampled:07/27/05 08:30 Received:07/27/05 13:43						
Total Coliforms	MPN/100 ml	**5**			2	SM 9221B/E
Fecal Coliforms	"	<2			2	"
LAKE HELEN Water (5070902-04) Sampled:07/27/05 09:00 Received:07/27/05 13:43						
Total Coliforms	MPN/100 ml	**7**			2	SM 9221B/E
Fecal Coliforms	"	<2			2	"
LAKE HELEN Water (5070902-05) Sampled:07/27/05 09:00 Received:07/27/05 13:43						
Total Coliforms	MPN/100 ml	**2**			2	SM 9221B/E
Fecal Coliforms	"	<2			2	"
LAKE HELEN Water (5070902-06) Sampled:07/27/05 09:00 Received:07/27/05 13:43						
Total Coliforms	MPN/100 ml	<2			2	SM 9221B/E
Fecal Coliforms	"	<2			2	"
CRUMBAUGH LAKE Water (5070902-08) Sampled:07/27/05 11:00 Received:07/27/05 13:43						
Total Coliforms	MPN/100 ml	**2**			2	SM 9221B/E

Fecal Coliforms	"	<2		2	"
CRUMBAUGH LAKE Water (5070902-09) Sampled:07/27/05 11:00 Received:07/27/05 13:43					
Total Coliforms	MPN/100 ml	<2		2	SM 9221B/E
Fecal Coliforms	"	<2		2	"
CRUMBAUGH LAKE Water (5070902-10) Sampled:07/27/05 11:00 Received:07/27/05 13:43					
Total Coliforms	MPN/100 ml	**8**		2	SM 9221B/E
Fecal Coliforms	"	<2		2	"
TERRACE LAKE Water (5070902-11) Sampled:07/27/05 12:30 Received:07/27/05 13:43					
Total Coliforms	MPN/100 ml	**4**		2	SM 9221B/E
Fecal Coliforms	"	<2		2	"
TERRACE LAKE Water (5070902-12) Sampled:07/27/05 12:30 Received:07/27/05 13:43					
Total Coliforms	MPN/100 ml	**4**		2	SM 9221B/E
Fecal Coliforms	"	<2		2	"
TERRACE LAKE Water (5070902-13) Sampled:07/27/05 12:30 Received:07/27/05 13:43					
Total Coliforms	MPN/100 ml	**5**		2	SM 9221B/E
Fecal Coliforms	"	<2		2	"

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Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY

Quality Control Data

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits
General Chemistry							
Batch B5G0563 - General Prep - GC							
LCS							
pH	7.05		pH Units	7.00		101	80-120
Duplicate Source: 5070902-02							
pH	7.04	0.01	pH Units		6.70		
Batch B5G0580 - General Prep - GC							
Blank							
Specific Conductance	ND	10	umhos/				

LCS								
Specific Conductance		107		umhos/	100		107	80-120
Duplicate	**Source: 5070902-02**							
Specific Conductance		10.0	10	umhos/ cm		10		
Batch B5G0597 - General Prep - GC								
Blank								
Alkalinity as CaCO3		ND	5	mg/l				
Hydroxide Alkalinity		ND	5	mg/l				
Bicarbonate		ND	5	mg/l				
Carbonate		ND	5	mg/l				
LCS								
Alkalinity as CaCO3		0.05		mg/l	0.0500		100	80-120
Duplicate	**Source: 5070902-01**							
Alkalinity as CaCO3		6.0	5	mg/l		6		
Duplicate	**Source: 5070825-01**							
Alkalinity as CaCO3		656	20	mg/l		660		
Batch B5G0638 - General Prep - GC								
Blank								
Alkalinity as CaCO3		ND	5	mg/l				
Hydroxide Alkalinity		ND	5	mg/l				
Bicarbonate		ND	5	mg/l				
Carbonate		ND	5	mg/l				
LCS								
Alkalinity as CaCO3		0.05		mg/l	0.0500		100	80-120
Duplicate	**Source: 5070902-11**							
Alkalinity as CaCO3		ND	5	mg/l		ND		
Duplicate	**Source: 5070955-03**							
Alkalinity as CaCO3		ND	5	mg/l		ND		

A

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California D.O.H.S. Cert #1677

Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY

Notes and Definitions

J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag). The J flag is equivalent to the DNQ Estin
A-01	<2
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the detection limit
NR	Not Reported
dry	Sample results reported on a dry weight basis

RPD	Relative Percent Difference
<	Less than reporting limit
≤	Less than or equal to reporting limit
>	Greater than reporting limit
≥	Greater than or equal to reporting limit
MDL	Method Detection Limit
RL/ML	Minimum Level of Quantitation
MCL/AL	Maxium Contaminant Level/Action Level
mg/kg	Results reported as wet weight
TTLC	Total Threshold Limit Concentration
STLC	Soluble Threshold Limit Concentration
TCLP	Toxicity Characteristic Leachate Procedure

Approved By

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California D.O.H.S. Cert #1677

Lab No: 5070902
Reported: 08/04/05
Phone: (707) 825-5189
P.O. #

	Analyzed	Prepared	Batch	
	07/28/05	07/28/05	B5G0597	
	"	"	"	
	"	"	"	
	"	"	"	
	07/27/05	07/27/05	B5G0563	
	07/28/05	07/28/05	B5G0597	
	"	"	"	
	"	"	"	
	"	"	"	
	07/28/05	07/28/05	B5G0580	
	07/28/05	07/28/05	B5G0597	
	"	"	"	
	"	"	"	
	"	"	"	
3		07/28/05	07/28/05	B5G0597
	"	"	"	
		"	"	"
	"	"	"	
	07/27/05	07/27/05	B5G0563	
3		07/28/05	07/28/05	B5G0597
	"	"	"	
		"	"	"
	"	"	"	
	07/28/05	07/28/05	B5G0580	
3		07/28/05	07/28/05	B5G0597
	"	"	"	
		"	"	"
	"	"	"	
	07/27/05	07/27/05	B5G0563	
3		07/28/05	07/28/05	B5G0597
	"	"	"	
		"	"	"
	"	"	"	
	07/28/05	07/28/05	B5G0580	
3		07/28/05	07/28/05	B5G0597
	"	"	"	
	"	"	"	
	"	"	"	
	07/27/05	07/27/05	B5G0563	
3		07/28/05	07/28/05	B5G0597
	"	"	"	

Lab No: 5070902
Reported: 08/04/05
Phone: (707) 825-5189
P.O. #

	Analyzed	Prepared	Batch	
	"	07/28/05	"	
	"	"	"	
	07/28/05	07/28/05	B5G0580	
3		07/28/05	07/28/05	B5G0597
	"	"	"	
	"	"	"	
	"	"	"	
	07/30/05	07/30/05	B5G0638	
	"	"	"	
	"	"	"	
	"	"	"	
	07/27/05	07/27/05	B5G0563	
	07/30/05	07/30/05	B5G0638	
	"	"	"	
	"	"	"	
	"	"	"	
	07/28/05	07/28/05	B5G0580	
	07/30/05	07/30/05	B5G0638	
	"	"	"	
	"	"	"	
	"	"	"	

Lab No: 5070902
Reported: 08/04/05
Phone: (707) 825-5189
P.O. #

Analyzed	Prepared	Batch
07/31/05	07/27/05	B5H0019
"	"	"
07/31/05	07/27/05	B5H0019
"	"	"
07/31/05	07/27/05	B5H0019
"	"	"
07/31/05	07/27/05	B5H0019
"	"	"
07/31/05	07/27/05	B5H0019
"	"	"
07/31/05	07/27/05	B5H0019
"	"	"
07/31/05	07/27/05	B5H0019

"	"	"
07/31/05	07/27/05	B5H0019
"	"	"
07/31/05	07/27/05	B5H0019
"	"	"
07/31/05	07/27/05	B5H0019
"	"	"
07/31/05	07/27/05	B5H0019
"	"	"
07/31/05	07/27/05	B5H0019
"	"	"

Lab No: 5070902
Reported: 08/04/05
Phone: (707) 825-5189
P.O. #

RPD	RPD Limit	Qualifier
4.95	20	

0.00	20
0.00	20
0.608	20
	20
	20

Lab No: 5070902
Reported: 08/04/05
Phone: (707) 825-5189
P.O. #

nated Concentration flag.

Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521
Attention: CHRIS CURRENS
Project: NPS - BASELINE WATER QUALITY INVENTORY

General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL	Method
SHADOW LAKE 1 Water (5070955-01) Sampled:07/27/05 15:00 Received:07/28/05 13:20						
Alkalinity as CaCO3	mg/l	**2**	J	2	5	SM 2320
Hydroxide Alkalinity	"	ND		2	5	"
Bicarbonate	"	**2**	J	2	5	"
Carbonate	"	ND		2	5	"
SHADOW LAKE 2 Water (5070955-02) Sampled:07/27/05 15:00 Received:07/28/05 13:20						
pH	pH Units	**6.38**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**2**	J	2	5	SM 2320
Hydroxide Alkalinity	"	ND		2	5	"
Bicarbonate	"	**2**	J	2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	ND		2	10	SM 2510B
SHADOW LAKE 3 Water (5070955-03) Sampled:07/27/05 15:00 Received:07/28/05 13:20						
Alkalinity as CaCO3	mg/l	ND		2	5	SM 2320B
Hydroxide Alkalinity	"	ND		2	5	"
Bicarbonate	"	ND		2	5	"
Carbonate	"	ND		2	5	"
CLIFF 1 Water (5070955-04) Sampled:07/27/05 16:00 Received:07/28/05 13:20						
Alkalinity as CaCO3	mg/l	**38**		2	5	SM 2320B
Hydroxide Alkalinity	"	ND		2	5	"
Bicarbonate	"	**46**		2	5	"
Carbonate	"	ND		2	5	"
CLIFF 2 Water (5070955-05) Sampled:07/27/05 16:00 Received:07/28/05 13:20						
pH	pH Units	**8.27**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**38**		2	5	SM 2320B
Hydroxide Alkalinity	"	ND		2	5	"
Bicarbonate	"	**46**		2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	**70**		2	10	SM 2510B
CLIFF 3 Water (5070955-06) Sampled:07/27/05 16:00 Received:07/28/05 13:20						
Alkalinity as CaCO3	mg/l	**39**		2	5	SM 2320B
Hydroxide Alkalinity	"	ND		2	5	"
Bicarbonate	"	**48**		2	5	"
Carbonate	"	ND		2	5	"
SIFFORD MAIN 1 Water (5070955-07) Sampled:07/28/05 10:00 Received:07/28/05 13:20						
Alkalinity as CaCO3	mg/l	ND		2	5	SM 2320B
Hydroxide Alkalinity	"	ND		2	5	"
Bicarbonate	"	ND		2	5	"
Carbonate	"	ND		2	5	"
SIFFORD MAIN 2 Water (5070955-08) Sampled:07/28/05 10:00 Received:07/28/05 13:20						
pH	pH Units	**6.04**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	ND		2	5	SM 2320B
Hydroxide Alkalinity	"	ND		2	5	"
Bicarbonate	"	ND		2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	ND		2	10	SM 2510B
SIFFORD MAIN 3 Water (5070955-09) Sampled:07/28/05 10:00 Received:07/28/05 13:20						
Alkalinity as CaCO3	mg/l	ND		2	5	SM 2320B
Hydroxide Alkalinity	"	ND		2	5	"
Bicarbonate	"	ND		2	5	"

Approved By

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California D.O.H.S. Cert #1677

Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY

General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL	Method
SIFFORD MAIN 3 Water (5070955-09) Sampled:07/28/05 10:00 Received:07/28/05 13:20						
Carbonate	"	ND		2	5	"
SIFFORD #2 1 Water (5070955-10) Sampled:07/28/05 10:00 Received:07/28/05 13:20						
Alkalinity as CaCO3	mg/l	**2**	J	2	5	SM 2320
Hydroxide Alkalinity	"	ND		2	5	"
Bicarbonate	"	**2**	J	2	5	"
Carbonate	"	ND		2	5	"
SIFFORD #2 2 Water (5070955-11) Sampled:07/28/05 10:00 Received:07/28/05 13:20						
pH	pH Units	**6.11**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**2**	J	2	5	SM 2320
Hydroxide Alkalinity	"	ND		2	5	"
Bicarbonate	"	**2**	J	2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	ND		2	10	SM 2510B
SIFFORD #2 3 Water (5070955-12) Sampled:07/28/05 10:00 Received:07/28/05 13:20						
Alkalinity as CaCO3	mg/l	**3**	J	2	5	SM 2320
Hydroxide Alkalinity	"	ND		2	5	"
Bicarbonate	"	**3**	J	2	5	"
Carbonate	"	ND		2	5	"

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Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY

Quality Control Data

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits
General Chemistry							
Batch B5G0601 - General Prep - GC							
LCS							
pH	7.06		pH Units	7.00		101	80-120
Duplicate **Source: 5070955-02**							
pH	6.36	0.01	pH Units		6.38		
Batch B5G0638 - General Prep - GC							
Blank							
Alkalinity as CaCO3	ND	5	mg/l				
Hydroxide Alkalinity	ND	5	mg/l				

Bicarbonate		ND	5	mg/l				
Carbonate		ND	5	mg/l				
LCS								
Alkalinity as CaCO3		0.05		mg/l	0.0500		100	80-120
Duplicate	**Source: 5070902-11**							
Alkalinity as CaCO3		ND	5	mg/l		ND		
Duplicate	**Source: 5070955-03**							
Alkalinity as CaCO3		ND	5	mg/l		ND		
Batch B5H0142 - General Prep - GC								
Blank								
Specific Conductance		ND	10	umhos/cm				
LCS								
Specific Conductance		105		umhos/cm	100		105	80-120
Duplicate	**Source: 5070955-02**							
Specific Conductance		ND	10	umhos/cm		ND		
Duplicate	**Source: 5080153-02**							
Specific Conductance		116	10	umhos/cm		116		

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Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY

Notes and Definitions

J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag). The J flag is equivalent to the DNQ Estima
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the detection limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
<	Less than reporting limit
≤	Less than or equal to reporting limit

>	Greater than reporting limit
≥	Greater than or equal to reporting limit
MDL	Method Detection Limit
RL/ML	Minimum Level of Quantitation
MCL/AL	Maxium Contaminant Level/Action Level
mg/kg	Results reported as wet weight
TTLC	Total Threshold Limit Concentration
STLC	Soluble Threshold Limit Concentration
TCLP	Toxicity Characteristic Leachate Procedure

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Basic Laboratory, Inc.

California D.O.H.S. Cert #1677

Lab No: 5070955
Reported: 08/10/05
Phone: (707) 825-5189
P.O. #

	Analyzed	Prepared	Batch	
B		07/30/05	07/30/05	B5G0638
	"	"	"	
		"	"	"
	"	"	"	
	07/28/05	07/28/05	B5G0601	
B		07/30/05	07/30/05	B5G0638
	"	"	"	
		"	"	"
	"	"	"	
	08/04/05	08/04/05	B5H0142	
	07/30/05	07/30/05	B5G0638	
	"	"	"	
	"	"	"	
	"	"	"	
	07/30/05	07/30/05	B5G0638	
	"	"	"	
	"	"	"	
	"	"	"	
	07/28/05	07/28/05	B5G0601	
	07/30/05	07/30/05	B5G0638	
	"	"	"	
	"	"	"	
	"	"	"	
	08/04/05	08/04/05	B5H0142	
	07/30/05	07/30/05	B5G0638	
	"	"	"	
	"	"	"	
	"	"	"	
	07/30/05	07/30/05	B5G0638	
	"	"	"	
	"	"	"	
	"	"	"	
	07/28/05	07/28/05	B5G0601	
	07/30/05	07/30/05	B5G0638	
	"	"	"	
	"	"	"	
	"	"	"	
	08/04/05	08/04/05	B5H0142	
	07/30/05	07/30/05	B5G0638	
	"	"	"	
	"	"	"	

Lab No: 5070955
Reported: 08/10/05
Phone: (707) 825-5189
P.O. #

	Analyzed	Prepared	Batch	
	"	07/30/05	"	
B		07/30/05	07/30/05	B5G0638
	"	"	"	
		"	"	"
	"	"	"	
	07/28/05	07/28/05	B5G0601	
B		07/30/05	07/30/05	B5G0638
	"	"	"	
		"	"	"
	"	"	"	
	08/04/05	08/04/05	B5H0142	
B		07/30/05	07/30/05	B5G0638
	"	"	"	
		"	"	"
	"	"	"	

Lab No: 5070955
Reported: 08/10/05
Phone: (707) 825-5189
P.O. #

RPD	RPD Limit	Qualifier
0.314	20	

	20
	20
	20
0.00	20

Lab No: 5070955
Reported: 08/10/05
Phone: (707) 825-5189
P.O. #

ated Concentration flag.

Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521
Attention: CHRIS CURRENS
Project: NPS - BASELINE WATER QUALITY INVENTORY LASSEN VNP

General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL	Method
MANZANITA CREEK 1 Surface Water (5060298-01) Sampled:06/06/05 16:00 Received:06/07/05 16:00						
pH	pH Units	**7.56**	I-03	0.01	0.01	
Alkalinity as CaCO3	mg/l	**50**		2	5	SM 2320B
Bicarbonate	"	**61**		2	5	"
Carbonate	"	ND		2	5	"
MANZANITA CREEK 2 Surface Water (5060298-02) Sampled:06/06/05 16:00 Received:06/07/05 16:00						
pH	pH Units	**7.63**	I-03	0.01	0.01	
Alkalinity as CaCO3	mg/l	**50**		2	5	SM 2320B
Bicarbonate	"	**61**		2	5	"
Carbonate	"	ND		2	5	"
MANZANITA CREEK 3 Surface Water (5060298-03) Sampled:06/06/05 16:00 Received:06/07/05 16:00						
pH	pH Units	**7.65**	I-03	0.01	0.01	
Alkalinity as CaCO3	mg/l	**51**		2	5	SM 2320B
Bicarbonate	"	**62**		2	5	"
Carbonate	"	ND		2	5	"
MANZANITA LAKE 1 Surface Water (5060298-04) Sampled:06/06/05 16:30 Received:06/07/05 16:00						
pH	pH Units	**8.51**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**48**		2	5	SM 2320B
Bicarbonate	"	**56**		2	5	"
Carbonate	"	ND		2	5	"
MANZANITA LAKE 2 Surface Water (5060298-05) Sampled:06/06/05 16:30 Received:06/07/05 16:00						
pH	pH Units	**8.60**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**48**		2	5	SM 2320B
Bicarbonate	"	**57**		2	5	"
Carbonate	"	ND		2	5	"
MANZANITA LAKE 3 Surface Water (5060298-06) Sampled:06/06/05 16:30 Received:06/07/05 16:00						
pH	pH Units	**8.52**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**48**		2	5	SM 2320B
Bicarbonate	"	**59**		2	5	"
Carbonate	"	ND		2	5	"
HAT CREEK 1 Surface Water (5060298-07) Sampled:06/06/05 18:00 Received:06/07/05 16:00						
pH	pH Units	**7.95**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**31**		2	5	SM 2320B
Bicarbonate	"	**38**		2	5	"
Carbonate	"	ND		2	5	"
HAT CREEK 2 Surface Water (5060298-08) Sampled:06/06/05 18:00 Received:06/07/05 16:00						
pH	pH Units	**8.06**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**31**		2	5	SM 2320B
Bicarbonate	"	**38**		2	5	"
Carbonate	"	ND		2	5	"
HAT CREEK 3 Surface Water (5060298-09) Sampled:06/06/05 18:00 Received:06/07/05 16:00						
pH	pH Units	**7.51**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**31**		2	5	SM 2320B
Bicarbonate	"	**38**		2	5	"
Carbonate	"	ND		2	5	"
SNAG LAKE 1 Surface Water (5060298-10) Sampled:06/07/05 11:30 Received:06/07/05 16:00						
pH	pH Units	**7.78**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**18**		2	5	SM 2320B
Bicarbonate	"	**22**		2	5	"
Carbonate	"	ND		2	5	"

Approved By

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California D.O.H.S. Cert #1677

Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY LASSEN VNP

General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL	Method
SNAG LAKE 2 Surface Water (5060298-11) Sampled:06/07/05 11:30 Received:06/07/05 16:00						
pH	pH Units	**7.89**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**18**		2	5	SM 2320B
Bicarbonate	"	**22**		2	5	"
Carbonate	"	ND		2	5	"
SNAG LAKE 3 Surface Water (5060298-12) Sampled:06/07/05 11:30 Received:06/07/05 16:00						
pH	pH Units	**7.90**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**18**		2	5	SM 2320B
Bicarbonate	"	**21**		2	5	"
Carbonate	"	ND		2	5	"
BUTTE LAKE 1 Surface Water (5060298-13) Sampled:06/07/05 13:00 Received:06/07/05 16:00						
pH	pH Units	**7.98**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**26**		2	5	SM 2320B
Bicarbonate	"	**32**		2	5	"
Carbonate	"	ND		2	5	"
BUTTE LAKE 2 Surface Water (5060298-14) Sampled:06/07/05 14:00 Received:06/07/05 16:00						
pH	pH Units	**8.28**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**26**		2	5	SM 2320B
Bicarbonate	"	**32**		2	5	"
Carbonate	"	ND		2	5	"
BUTTE LAKE 3 Surface Water (5060298-15) Sampled:06/07/05 14:00 Received:06/07/05 16:00						
pH	pH Units	**8.02**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**26**		2	5	SM 2320B
Bicarbonate	"	**32**		2	5	"
Carbonate	"	ND		2	5	"

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Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY LASSEN VNP

Microbiology

Analyte		Units	Results	Qualifier	MDL	RL	Method
SNAG LAKE 1	**Surface Water**	**(5060298-10)**	**Sampled:06/07/05 11:30**		**Received:06/07/05 16:00**		
Total Coliforms		MPN/100 ml	**17**			2	SM 9221B/E
Fecal Coliforms		"	**13**			2	"
SNAG LAKE 2	**Surface Water**	**(5060298-11)**	**Sampled:06/07/05 11:30**		**Received:06/07/05 16:00**		
Total Coliforms		MPN/100 ml	**33**			2	SM 9221B/E
Fecal Coliforms		"	**11**			2	"
SNAG LAKE 3	**Surface Water**	**(5060298-12)**	**Sampled:06/07/05 11:30**		**Received:06/07/05 16:00**		
Total Coliforms		MPN/100 ml	**33**			2	SM 9221B/E
Fecal Coliforms		"	**8**			2	"
BUTTE LAKE 1	**Surface Water**	**(5060298-13)**	**Sampled:06/07/05 13:00**		**Received:06/07/05 16:00**		
Total Coliforms		MPN/100 ml	**8**			2	SM 9221B/E
Fecal Coliforms		"	<2			2	"
BUTTE LAKE 2	**Surface Water**	**(5060298-14)**	**Sampled:06/07/05 14:00**		**Received:06/07/05 16:00**		
Total Coliforms		MPN/100 ml	**33**			2	SM 9221B/E
Fecal Coliforms		"	**5**			2	"
BUTTE LAKE 3	**Surface Water**	**(5060298-15)**	**Sampled:06/07/05 14:00**		**Received:06/07/05 16:00**		
Total Coliforms		MPN/100 ml	**13**			2	SM 9221B/E
Fecal Coliforms		"	<2			2	"

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Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY LASSEN VNP

Quality Control Data

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits
General Chemistry							
Batch B5F0147 - General Prep - GC							
LCS							
pH	7.04		pH Units	7.00		101	80-120
Duplicate **Source: 5060298-11**							
pH	7.83	0.01	pH Units		7.89		
Batch B5F0148 - General Prep - GC							
LCS							
pH	7.04		pH Units	7.00		101	80-120

Duplicate	**Source: 5060253-01**						
pH	8.89	0.01	pH Units		8.87		
Duplicate	**Source: 5060298-04**						
pH	8.47	0.01	pH Units		8.51		
Batch B5F0237 - General Prep - GC							
Blank							
Alkalinity as CaCO3	ND	5	mg/l				
Bicarbonate	ND	5	mg/l				
Carbonate	ND	5	mg/l				
LCS							
Alkalinity as CaCO3	0.05		mg/l	0.0500		100	80-120
Duplicate	**Source: 5060298-01**						
Alkalinity as CaCO3	50.0	5	mg/l		50		
Duplicate	**Source: 5060298-11**						
Alkalinity as CaCO3	18.0	5	mg/l		18		

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Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY LASSEN VNP

Notes and Definitions

I-03	Sample was received past the EPA recommended holding time.
A-01	<2
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the detection limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
<	Less than reporting limit

≤	Less than or equal to reporting limit
>	Greater than reporting limit
≥	Greater than or equal to reporting limit
MDL	Method Detection Limit
RL/ML	Minimum Level of Quantitation
MCL/AL	Maxium Contaminant Level/Action Level
mg/kg	Results reported as wet weight
TTLC	Total Threshold Limit Concentration
STLC	Soluble Threshold Limit Concentration
TCLP	Toxicity Characteristic Leachate Procedure

Approved By

Basic Laboratory, Inc.

California D.O.H.S. Cert #1677

Lab No: 5060298
Reported: 06/15/05
Phone: (707) 825-5189
P.O. #

	Analyzed	Prepared	Batch
SM 4500H+	06/07/05	06/07/05	B5F0148
	06/11/05	06/11/05	B5F0237
	"	"	"
	"	"	"
SM 4500H+	06/07/05	06/07/05	B5F0148
	06/11/05	06/11/05	B5F0237
	"	"	"
	"	"	"
SM 4500H+	06/07/05	06/07/05	B5F0148
	06/11/05	06/11/05	B5F0237
	"	"	"
	"	"	"
	06/07/05	06/07/05	B5F0148
	06/11/05	06/11/05	B5F0237
	"	"	"
	"	"	"
	06/07/05	06/07/05	B5F0148
	06/11/05	06/11/05	B5F0237
	"	"	"
	"	"	"
	06/07/05	06/07/05	B5F0148
	06/11/05	06/11/05	B5F0237
	"	"	"
	"	"	"
	06/07/05	06/07/05	B5F0148
	06/11/05	06/11/05	B5F0237
	"	"	"
	"	"	"
	06/07/05	06/07/05	B5F0148
	06/11/05	06/11/05	B5F0237
	"	"	"
	"	"	"
	06/07/05	06/07/05	B5F0148
	06/11/05	06/11/05	B5F0237
	"	"	"
	"	"	"
	06/07/05	06/07/05	B5F0148
	06/11/05	06/11/05	B5F0237
	"	"	"
	"	"	"

Lab No: 5060298
Reported: 06/15/05
Phone: (707) 825-5189
P.O. #

Analyzed	Prepared	Batch
06/07/05	06/07/05	B5F0147
06/11/05	06/11/05	B5F0237
"	"	"
"	"	"
06/07/05	06/07/05	B5F0147
06/11/05	06/11/05	B5F0237
"	"	"
"	"	"
06/07/05	06/07/05	B5F0147
06/11/05	06/11/05	B5F0237
"	"	"
"	"	"
06/07/05	06/07/05	B5F0147
06/11/05	06/11/05	B5F0237
"	"	"
"	"	"
06/07/05	06/07/05	B5F0147
06/11/05	06/11/05	B5F0237
"	"	"
"	"	"

Lab No: 5060298
Reported: 06/15/05
Phone: (707) 825-5189
P.O. #

Analyzed	Prepared	Batch
06/11/05	06/07/05	B5F0259
"	"	"
06/11/05	06/07/05	B5F0259
"	"	"
06/11/05	06/07/05	B5F0259
"	"	"
06/11/05	06/07/05	B5F0259
"	"	"
06/11/05	06/07/05	B5F0259
"	"	"
06/11/05	06/07/05	B5F0259
"	"	"

Lab No: 5060298
Reported: 06/15/05
Phone: (707) 825-5189
P.O. #

RPD	RPD Limit	Qualifier
0.763	20	

0.225	20
0.471	20
0.00	20
0.00	20

Lab No: 5060298
Reported: 06/15/05
Phone: (707) 825-5189
P.O. #

Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521
Attention: CHRIS CURRENS
Project: NPS - BASELINE WATER QUALITY INVENTORY LASSEN VNP

General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL	Method
MILL CREEK 1 Water (5060378-01) Sampled:06/08/05 09:30 Received:06/09/05 11:50						
pH	pH Units	**6.76**	I-03	0.01	0.01	SM 4500H
Alkalinity as CaCO3	mg/l	**11**		2	5	SM 2320B
Bicarbonate	"	**13**		2	5	"
Carbonate	"	ND		2	5	"
MILL CREEK 2 Water (5060378-02) Sampled:06/08/05 09:30 Received:06/09/05 11:50						
pH	pH Units	**6.83**	I-03	0.01	0.01	SM 4500H
Alkalinity as CaCO3	mg/l	**11**		2	5	SM 2320B
Bicarbonate	"	**13**		2	5	"
Carbonate	"	ND		2	5	"
MILL CREEK 3 Water (5060378-03) Sampled:06/08/05 09:30 Received:06/09/05 11:50						
pH	pH Units	**6.87**	I-03	0.01	0.01	SM 4500H
Alkalinity as CaCO3	mg/l	**11**		2	5	SM 2320B
Bicarbonate	"	**13**		2	5	"
Carbonate	"	ND		2	5	"
KINGS CREEK 1 Water (5060378-04) Sampled:06/08/05 09:00 Received:06/09/05 11:50						
pH	pH Units	**6.97**	I-03	0.01	0.01	SM 4500H
Alkalinity as CaCO3	mg/l	**14**		2	5	SM 2320B
Bicarbonate	"	**17**		2	5	"
Carbonate	"	ND		2	5	"
KINGS CREEK 2 Water (5060378-05) Sampled:06/08/05 09:00 Received:06/09/05 11:50						
pH	pH Units	**6.92**	I-03	0.01	0.01	SM 4500H
Alkalinity as CaCO3	mg/l	**14**		2	5	SM 2320B
Bicarbonate	"	**17**		2	5	"
Carbonate	"	ND		2	5	"
KINGS CREEK 3 Water (5060378-06) Sampled:06/08/05 09:00 Received:06/09/05 11:50						
pH	pH Units	**6.90**	I-03	0.01	0.01	SM 4500H
Alkalinity as CaCO3	mg/l	**15**		2	5	SM 2320B
Bicarbonate	"	**18**		2	5	"
Carbonate	"	ND		2	5	"
SUMMIT LAKE 1 Water (5060378-07) Sampled:06/09/05 08:30 Received:06/09/05 11:50						
pH	pH Units	**5.90**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**5**		2	5	SM 2320B
Bicarbonate	"	**5**		2	5	"
Carbonate	"	ND		2	5	"
SUMMIT LAKE 2 Water (5060378-08) Sampled:06/09/05 08:30 Received:06/09/05 11:50						
pH	pH Units	**5.92**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**5**		2	5	SM 2320B
Bicarbonate	"	**5**		2	5	"
Carbonate	"	ND		2	5	"
SUMMIT LAKE 3 Water (5060378-09) Sampled:06/09/05 08:30 Received:06/09/05 11:50						
pH	pH Units	**5.90**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**5**		2	5	SM 2320B
Bicarbonate	"	**6**		2	5	"
Carbonate	"	ND		2	5	"
HOT SPRINGS CREEK 1 Water (5060378-10) Sampled:06/08/05 14:30 Received:06/09/05 11:50						
pH	pH Units	**7.33**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**35**		2	5	SM 2320B
Bicarbonate	"	**43**		2	5	"
Carbonate	"	ND		2	5	"

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Basic Laboratory, Inc.

California D.O.H.S. Cert #1677

Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY LASSEN VNP

General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL	Method
HOT SPRINGS CREEK 2 Water (5060378-11) Sampled:06/08/05 14:30 Received:06/09/05 11:50						
pH	pH Units	**7.55**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**36**		2	5	SM 2320B
Bicarbonate	"	**43**		2	5	"
Carbonate	"	ND		2	5	"
HOT SPRINGS CREEK 3 Water (5060378-12) Sampled:06/08/05 14:30 Received:06/09/05 11:50						
pH	pH Units	**7.63**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**36**		2	5	SM 2320B
Bicarbonate	"	**44**		2	5	"
Carbonate	"	ND		2	5	"
LITTLE WILLOW LAKE 1 Water (5060378-13) Sampled:06/08/05 12:45 Received:06/09/05 11:50						
pH	pH Units	**7.52**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**6**		2	5	SM 2320B
Bicarbonate	"	**7**		2	5	"
Carbonate	"	ND		2	5	"
LITTLE WILLOW LAKE 2 Water (5060378-14) Sampled:06/08/05 12:45 Received:06/09/05 11:50						
pH	pH Units	**7.18**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**6**		2	5	SM 2320B
Bicarbonate	"	**7**		2	5	"
Carbonate	"	ND		2	5	"
LITTLE WILLOW LAKE 3 Water (5060378-15) Sampled:06/08/05 12:45 Received:06/09/05 11:50						
pH	pH Units	**6.89**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**6**		2	5	SM 2320B
Bicarbonate	"	**7**		2	5	"
Carbonate	"	ND		2	5	"

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1655 HEINDEN RD
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Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY LASSEN VNP

Microbiology

Analyte	Units	Results	Qualifier	MDL	RL	Method
SUMMIT LAKE 1 Water (5060378-07) Sampled:06/09/05 08:30 Received:06/09/05 11:50						
Total Coliforms	MPN/100 ml	**17**			2	SM 9221B/E
Fecal Coliforms	"	<2			2	"
SUMMIT LAKE 2 Water (5060378-08) Sampled:06/09/05 08:30 Received:06/09/05 11:50						
Total Coliforms	MPN/100 ml	**2**			2	SM 9221B/E
Fecal Coliforms	"	<2			2	"
SUMMIT LAKE 3 Water (5060378-09) Sampled:06/09/05 08:30 Received:06/09/05 11:50						
Total Coliforms	MPN/100 ml	**8**			2	SM 9221B/E
Fecal Coliforms	"	<2			2	"
MANZANITA LAKE 1 Water (5060378-16) Sampled:06/09/05 09:30 Received:06/09/05 11:50						
Total Coliforms	MPN/100 ml	**11**			2	SM 9221B/E
Fecal Coliforms	"	<2			2	"
MANZANITA LAKE 2 Water (5060378-17) Sampled:06/09/05 09:30 Received:06/09/05 11:50						
Total Coliforms	MPN/100 ml	**13**			2	SM 9221B/E
Fecal Coliforms	"	**2**			2	"
MANZANITA LAKE 3 Water (5060378-18) Sampled:06/09/05 09:30 Received:06/09/05 11:50						
Total Coliforms	MPN/100 ml	**70**			2	SM 9221B/E
Fecal Coliforms	"	<2			2	"

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Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
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Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY LASSEN VNP

Quality Control Data

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits
General Chemistry							
Batch B5F0188 - General Prep - GC							
LCS							
pH	7.05		pH Units	7.00		101	80-120
Duplicate	**Source: 5060378-01**						
pH	6.77	0.01	pH Units		6.76		
Duplicate	**Source: 5060378-11**						
pH	7.60	0.01	pH Units		7.55		
Batch B5F0237 - General Prep - GC							

Blank							
Alkalinity as CaCO3	ND	5	mg/l				
Bicarbonate	ND	5	mg/l				
Carbonate	ND	5	mg/l				
LCS							
Alkalinity as CaCO3	0.05		mg/l	0.0500		100	80-120
Duplicate	**Source: 5060298-01**						
Alkalinity as CaCO3	50.0	5	mg/l		50		
Duplicate	**Source: 5060298-11**						
Alkalinity as CaCO3	18.0	5	mg/l		18		
Batch B5F0309 - General Prep - GC							
Blank							
Alkalinity as CaCO3	ND	5	mg/l				
Bicarbonate	ND	5	mg/l				
Carbonate	ND	5	mg/l				
LCS							
Alkalinity as CaCO3	0.05		mg/l	0.0500		100	80-120
Duplicate	**Source: 5060378-06**						
Alkalinity as CaCO3	15.0	5	mg/l		15		
Duplicate	**Source: 5060491-02**						
Alkalinity as CaCO3	138	5	mg/l		136		

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1655 HEINDEN RD
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Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY LASSEN VNP

Notes and Definitions

I-03	Sample was received past the EPA recommended holding time.
A-01	<2
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the detection limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

<	Less than reporting limit
≤	Less than or equal to reporting limit
>	Greater than reporting limit
≥	Greater than or equal to reporting limit
MDL	Method Detection Limit
RL/ML	Minimum Level of Quantitation
MCL/AL	Maxium Contaminant Level/Action Level
mg/kg	Results reported as wet weight
TTLC	Total Threshold Limit Concentration
STLC	Soluble Threshold Limit Concentration
TCLP	Toxicity Characteristic Leachate Procedure

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Lab No: 5060378
Reported: 06/15/05
Phone: (707) 825-5189
P.O. #

	Analyzed	Prepared	Batch
ł+	06/09/05	06/09/05	B5F0188
	06/11/05	06/11/05	B5F0237
	"	"	"
	"	"	"
ł+	06/09/05	06/09/05	B5F0188
	06/11/05	06/11/05	B5F0237
	"	"	"
	"	"	"
ł+	06/09/05	06/09/05	B5F0188
	06/11/05	06/11/05	B5F0237
	"	"	"
	"	"	"
ł+	06/09/05	06/09/05	B5F0188
	06/11/05	06/11/05	B5F0237
	"	"	"
	"	"	"
ł+	06/09/05	06/09/05	B5F0188
	06/11/05	06/11/05	B5F0237
	"	"	"
	"	"	"
ł+	06/09/05	06/09/05	B5F0188
	06/14/05	06/14/05	B5F0309
	"	"	"
	"	"	"
	06/09/05	06/09/05	B5F0188
	06/14/05	06/14/05	B5F0309
	"	"	"
	"	"	"
	06/09/05	06/09/05	B5F0188
	06/14/05	06/14/05	B5F0309
	"	"	"
	"	"	"
	06/09/05	06/09/05	B5F0188
	06/14/05	06/14/05	B5F0309
	"	"	"
	"	"	"
	06/09/05	06/09/05	B5F0188
	06/14/05	06/14/05	B5F0309
	"	"	"
	"	"	"

Lab No: 5060378
Reported: 06/15/05
Phone: (707) 825-5189
P.O. #

Analyzed	Prepared	Batch
06/09/05	06/09/05	B5F0188
06/14/05	06/14/05	B5F0309
"	"	"
"	"	"
06/09/05	06/09/05	B5F0188
06/14/05	06/14/05	B5F0309
"	"	"
"	"	"
06/09/05	06/09/05	B5F0188
06/14/05	06/14/05	B5F0309
"	"	"
"	"	"
06/09/05	06/09/05	B5F0188
06/14/05	06/14/05	B5F0309
"	"	"
"	"	"
06/09/05	06/09/05	B5F0188
06/14/05	06/14/05	B5F0309
"	"	"
"	"	"

Lab No: 5060378
Reported: 06/15/05
Phone: (707) 825-5189
P.O. #

Analyzed	Prepared	Batch
06/13/05	06/09/05	B5F0263
"	"	"
06/13/05	06/09/05	B5F0263
"	"	"
06/13/05	06/09/05	B5F0263
"	"	"
06/13/05	06/09/05	B5F0263
"	"	"
06/13/05	06/09/05	B5F0263
"	"	"
06/13/05	06/09/05	B5F0263
"	"	"

Lab No: 5060378
Reported: 06/15/05
Phone: (707) 825-5189
P.O. #

RPD	RPD Limit	Qualifier
0.148	20	
0.660	20	

0.00	20
0.00	20
0.00	20
1.46	20

Lab No: 5060378
Reported: 06/15/05
Phone: (707) 825-5189
P.O. #

Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521
Attention: CHRIS CURRENS
Project: NPS - BASELINE WATER QUALITY INVENTORY LASSEN PROJECT

General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL	Method
SNAG LAKE 1 Surface Water (5090055-01) Sampled:09/01/05 09:00 Received:09/01/05 15:51						
pH	pH Units	**8.12**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**23**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**28**		2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	**40**		2	10	SM 2510B
SNAG LAKE 2 Surface Water (5090055-02) Sampled:09/01/05 09:00 Received:09/01/05 15:51						
Alkalinity as CaCO3	mg/l	**23**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**28**		2	5	"
Carbonate	"	ND		2	5	"
SNAG LAKE 3 Surface Water (5090055-03) Sampled:09/01/05 09:00 Received:09/01/05 15:51						
Alkalinity as CaCO3	mg/l	**22**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**27**		2	5	"
Carbonate	"	ND		2	5	"
HORSESHOE LAKE 1 Surface Water (5090055-04) Sampled:09/01/05 10:30 Received:09/01/05 15:51						
pH	pH Units	**7.84**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**18**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**22**		2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	**32**		2	10	SM 2510B
HORSESHOE LAKE 2 Surface Water (5090055-05) Sampled:09/01/05 10:30 Received:09/01/05 15:51						
Alkalinity as CaCO3	mg/l	**18**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**22**		2	5	"
Carbonate	"	ND		2	5	"
HORSESHOE LAKE 3 Surface Water (5090055-06) Sampled:09/01/05 10:30 Received:09/01/05 15:51						
Alkalinity as CaCO3	mg/l	**18**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**22**		2	5	"
Carbonate	"	ND		2	5	"
CRYSTAL LAKE 1 Surface Water (5090055-07) Sampled:09/01/05 12:30 Received:09/01/05 15:51						
pH	pH Units	**7.16**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**5**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**6**		2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	**6**	J	2	10	SM
CRYSTAL LAKE 2 Surface Water (5090055-08) Sampled:09/01/05 12:30 Received:09/01/05 15:51						
Alkalinity as CaCO3	mg/l	**5**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**6**		2	5	"
Carbonate	"	ND		2	5	"
CRYSTAL LAKE 3 Surface Water (5090055-09) Sampled:09/01/05 12:30 Received:09/01/05 15:51						
Alkalinity as CaCO3	mg/l	**6**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**7**		2	5	"

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Report To: U S GEOLOGICAL SURVEY - REDWOOD FIELD STATION
1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY LASSEN PROJECT

General Chemistry

Analyte	Units	Results	Qualifier	MDL	RL	Method
CRYSTAL LAKE 3 Surface Water (5090055-09) Sampled:09/01/05 12:30 Received:09/01/05 15:51						
Carbonate	"	ND		2	5	"
JUNIPER LAKE 1 Surface Water (5090055-10) Sampled:09/01/05 13:00 Received:09/01/05 15:51						
pH	pH Units	**7.14**		0.01	0.01	SM 4500H+
Alkalinity as CaCO3	mg/l	**6**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**7**		2	5	"
Carbonate	"	ND		2	5	"
Specific Conductance	umhos/cm	**8**	J	2	10	SM
JUNIPER LAKE 2 Surface Water (5090055-11) Sampled:09/01/05 13:00 Received:09/01/05 15:51						
Alkalinity as CaCO3	mg/l	**6**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**7**		2	5	"
Carbonate	"	ND		2	5	"
JUNIPER LAKE 3 Surface Water (5090055-12) Sampled:09/01/05 13:00 Received:09/01/05 15:51						
Alkalinity as CaCO3	mg/l	**6**		2	5	SM 2320B
Hydroxide	"	ND		2	5	"
Bicarbonate	"	**7**		2	5	"
Carbonate	"	ND		2	5	"

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Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY LASSEN PROJECT

Microbiology

Analyte	Units	Results	Qualifier	MDL	RL	Method
SNAG LAKE 1 Surface Water (5090055-01) Sampled:09/01/05 09:00 Received:09/01/05 15:51						
Total Coliforms	MPN/100 ml	**140**			2	SM 9221B/E
Fecal Coliforms	"	**2**			2	"
SNAG LAKE 2 Surface Water (5090055-02) Sampled:09/01/05 09:00 Received:09/01/05 15:51						
Total Coliforms	MPN/100 ml	**27**			2	SM 9221B/E
Fecal Coliforms	"	<2			2	"
SNAG LAKE 3 Surface Water (5090055-03) Sampled:09/01/05 09:00 Received:09/01/05 15:51						
Total Coliforms	MPN/100 ml	**23**			2	SM 9221B/E
Fecal Coliforms	"	<2			2	"
HORSESHOE LAKE 1 Surface Water (5090055-04) Sampled:09/01/05 10:30 Received:09/01/05 15:51						
Total Coliforms	MPN/100 ml	<2			2	SM 9221B/E
Fecal Coliforms	"	<2			2	"
HORSESHOE LAKE 2 Surface Water (5090055-05) Sampled:09/01/05 10:30 Received:09/01/05 15:51						
Total Coliforms	MPN/100 ml	**24**			2	SM 9221B/E

Fecal Coliforms		"	<2		2	"
HORSESHOE LAKE 3	**Surface Water**	**(5090055-06)**	**Sampled:09/01/05 10:30**	**Received:09/01/05 15:51**		
Total Coliforms		MPN/100 ml	**21**		2	SM 9221B/E
Fecal Coliforms		"	<2		2	"
CRYSTAL LAKE 1	**Surface Water**	**(5090055-07)**	**Sampled:09/01/05 12:30**	**Received:09/01/05 15:51**		
Total Coliforms		MPN/100 ml	**9**		2	SM 9221B/E
Fecal Coliforms		"	**2**		2	"
CRYSTAL LAKE 2	**Surface Water**	**(5090055-08)**	**Sampled:09/01/05 12:30**	**Received:09/01/05 15:51**		
Total Coliforms		MPN/100 ml	**5**		2	SM 9221B/E
Fecal Coliforms		"	**2**		2	"
CRYSTAL LAKE 3	**Surface Water**	**(5090055-09)**	**Sampled:09/01/05 12:30**	**Received:09/01/05 15:51**		
Total Coliforms		MPN/100 ml	**17**		2	SM 9221B/E
Fecal Coliforms		"	**5**		2	"
JUNIPER LAKE 1	**Surface Water**	**(5090055-10)**	**Sampled:09/01/05 13:00**	**Received:09/01/05 15:51**		
Total Coliforms		MPN/100 ml	**2**		2	SM 9221B/E
Fecal Coliforms		"	<2		2	"
JUNIPER LAKE 2	**Surface Water**	**(5090055-11)**	**Sampled:09/01/05 13:00**	**Received:09/01/05 15:51**		
Total Coliforms		MPN/100 ml	**4**		2	SM 9221B/E
Fecal Coliforms		"	<2		2	"
JUNIPER LAKE 3	**Surface Water**	**(5090055-12)**	**Sampled:09/01/05 13:00**	**Received:09/01/05 15:51**		
Total Coliforms		MPN/100 ml	**4**		2	SM 9221B/E
Fecal Coliforms		"	<2		2	"

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1655 HEINDEN RD
ARCATA, CA 95521

Attention: CHRIS CURRENS

Project: NPS - BASELINE WATER QUALITY INVENTORY LASSEN PROJECT

Quality Control Data

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits
General Chemistry							
Batch B5I0037 - General Prep - GC							
LCS							
pH	7.03		pH Units	7.00		100	80-120

Duplicate	**Source: 5080826-01**							
pH		6.67	0.01	pH Units		6.68		
Batch B5I0055 - General Prep - GC								
Blank								
Specific Conductance		ND	10	umhos/cm				
LCS								
Specific Conductance		99.0		umhos/cm	100		99.0	80-120
Duplicate	**Source: 5081201-01**							
Specific Conductance		40.0	10	umhos/cm		36		
Batch B5I0106 - General Prep - GC								
Blank								
Alkalinity as CaCO3		ND	5	mg/l				
Hydroxide		ND	5	mg/l				
Bicarbonate		ND	5	mg/l				
Carbonate		ND	5	mg/l				
LCS								
Alkalinity as CaCO3		0.05		mg/l	0.0500		100	80-120
Duplicate	**Source: 5090055-01**							
Alkalinity as CaCO3		23.0	5	mg/l		23		
Duplicate	**Source: 5090055-11**							
Alkalinity as CaCO3		6.0	5	mg/l		6		

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Notes and Definitions

J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag). The J flag is equivalent to the DNQ Estimate
A-01	<2
DET	Analyte DETECTED

ND	Analyte NOT DETECTED at or above the detection limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
<	Less than reporting limit
≤	Less than or equal to reporting limit
>	Greater than reporting limit
≥	Greater than or equal to reporting limit
MDL	Method Detection Limit
RL/ML	Minimum Level of Quantitation
MCL/AL	Maxium Contaminant Level/Action Level
mg/kg	Results reported as wet weight
TTLC	Total Threshold Limit Concentration
STLC	Soluble Threshold Limit Concentration
TCLP	Toxicity Characteristic Leachate Procedure

Approved By

Basic Laboratory, Inc.

California D.O.H.S. Cert #1677

Lab No: 5090055
Reported: 09/08/05
Phone: (707) 825-5189
P.O. #

	Analyzed	Prepared	Batch	
	09/01/05	09/01/05	B5I0037	
	09/06/05	09/06/05	B5I0106	
	"	"	"	
	"	"	"	
	"	"	"	
	09/02/05	09/02/05	B5I0055	
	09/06/05	09/06/05	B5I0106	
	"	"	"	
	"	"	"	
	"	"	"	
	09/06/05	09/06/05	B5I0106	
	"	"	"	
	"	"	"	
	"	"	"	
	09/01/05	09/01/05	B5I0037	
	09/06/05	09/06/05	B5I0106	
	"	"	"	
	"	"	"	
	"	"	"	
	09/02/05	09/02/05	B5I0055	
	09/06/05	09/06/05	B5I0106	
	"	"	"	
	"	"	"	
	"	"	"	
	09/06/05	09/06/05	B5I0106	
	"	"	"	
	"	"	"	
	"	"	"	
	09/01/05	09/01/05	B5I0037	
	09/06/05	09/06/05	B5I0106	
	"	"	"	
	"	"	"	
	"	"	"	
2510B		09/02/05	09/02/05	B5I0055
	09/06/05	09/06/05	B5I0106	
	"	"	"	
	"	"	"	
	"	"	"	
	09/06/05	09/06/05	B5I0106	
	"	"	"	
	"	"	"	

Lab No: 5090055
Reported: 09/08/05
Phone: (707) 825-5189
P.O. #

	Analyzed	Prepared	Batch	
	"	09/06/05	"	
	09/01/05	09/01/05	B5I0037	
	09/06/05	09/06/05	B5I0106	
	"	"	"	
	"	"	"	
	"	"	"	
2510B		09/02/05	09/02/05	B5I0055
	09/06/05	09/06/05	B5I0106	
	"	"	"	
	"	"	"	
	"	"	"	
	09/06/05	09/06/05	B5I0106	
	"	"	"	
	"	"	"	
	"	"	"	

Lab No: 5090055
Reported: 09/08/05
Phone: (707) 825-5189
P.O. #

Analyzed	Prepared	Batch
09/05/05	09/01/05	B5I0101
"	"	"
09/05/05	09/01/05	B5I0101
"	"	"
09/05/05	09/01/05	B5I0101
"	"	"
09/05/05	09/01/05	B5I0101
"	"	"
09/05/05	09/01/05	B5I0101

"	"	"
09/05/05	09/01/05	B5I0101
"	"	"
09/05/05	09/01/05	B5I0101
"	"	"
09/05/05	09/01/05	B5I0101
"	"	"
09/05/05	09/01/05	B5I0101
"	"	"
09/05/05	09/01/05	B5I0101
"	"	"
09/05/05	09/01/05	B5I0101
"	"	"
09/05/05	09/01/05	B5I0101
"	"	"

Lab No: 5090055
Reported: 09/08/05
Phone: (707) 825-5189
P.O. #

RPD	RPD Limit	Qualifier

0.150	20
10.5	20
0.00	20
0.00	20

Lab No: 5090055
Reported: 09/08/05
Phone: (707) 825-5189
P.O. #

ed Concentration flag.

Site	Date	Temp ©	Specific C	D O	pH
Orgeon Caves National Monument (ORCA)					
Lwr Cave Creek #1 (@ bridge)	5/24/2005	7.3	na	11.22	na
		7.28	na	11.08	na
		7.29	na	11.12	na
Lwr Cave Creek@ Culvert	5/24/2005	6.36	na	11.61	na
		6.48	na	11.51	na
		6.36	na	11.3	na
Marble Springs #3	5/24/2005	6.42	na	11.87	na
		6.43	na	11.86	na
		6.64	na	11.52	na
Cave Pool @ Washington Mont (Lake Michigan)	5/24/2005	6.77	na	11.15	na
		6.74	na	11.14	na
		6.72	na	11.2	na
Cave Pool #2 R7D (River Styx)	5/24/2005	6.79	na	11.15	na
		6.79	na	11.15	na
		6.79	na	11	na
Lwr Cave Creek @ Entrance	5/24/2005	5.68	na	11.62	na
		5.68	na	11.6	na
		5.68	na	11.48	na
Upr Cave Creek	5/24/2005	6.26	na	11.08	na
		6.25	na	11.07	na
		6.26	na	11.04	na
Cave Pool #2 R7D (River Styx)	10/12/2005	6.84	141	10.78	8.76
		6.83	142	10.8	8.55
		6.82	141	10.65	8.52
Cave Pool @ Washington Monument (Lake Michigan)	10/12/2005	6.9	139	10.48	8.58
		6.88	138	10.48	8.56
		6.89	139	10.51	8.56
Lwr Cave Creek @ ent	10/12/2005	5.89	0.14	11.05	8.38
		5.88	0.139	11.09	8.38
		5.89	0.138	11.08	8.39
Lwr Cave Creek @ Brg	10/12/2005	7.29	155	10.71	8.8
		7.3	155	10.6	8.81
		7.3	155	10.63	8.81
Marble Springs	10/12/2005	6.92	0.145	10.95	8.82
		6.89	0.149	10.8	8.79

		6.88	0.144	10.84	8.77
Lwr Cave Creek @ culv	10/12/2005	6.7	152	10.71	8.63
		6.78	154	10.62	8.6
		6.86	156	10.41	8.57
Upr Cave Creek	10/12/2005	na	** no water**	na	
Lake Creek @ culv	10/13/2005	5.62	62	10.79	8.67
		5.61	62	10.91	8.56
		5.59	62	11.03	8.53

Coordinate	fecal sample collected	water sample collected	Nitrate/Cl sample collected
N: 4660750.428	yes	yes	yes
E: 465943.526	yes	yes	yes
	yes	yes	yes
42*05'55.33"N	na	yes	yes
123*24'30.33"W	na	yes	yes
	na	yes	yes
N: 4660832.9	na	yes	yes
E: 466155.135	na	yes	yes
	na	yes	yes
N 4660617.546	na	yes	yes
E 466360.0448	na	yes	yes
	na	yes	yes
N 4660558.714	na	yes	yes
E 466348.9867	na	yes	yes
	na	yes	yes
N: 4660749.009	yes	yes	na
E: 466306.663	yes	yes	na
	yes	yes	na
N: 4660529.33	na	yes	yes
E: 466614.351	na	yes	yes
	na	yes	yes
N 4660558.714	na	yes	na
E 466348.9867	na	yes	na
	na	yes	na
N 4660617.546	na	yes	na
E 466360.0448	na	yes	na
	na	yes	na
N: 4660749.009	na	yes	na
E: 466306.663	na	yes	na
	na	yes	na
N: 4660750.428	yes	yes	yes
E: 465943.526	yes	yes	yes
	yes	yes	yes
N: 4660832.9	na	yes	na
E: 466155.135	na	yes	na

	na	yes	na
42*05'55.33"N	yes	na	
123*24'30.33"W	yes	na	
	yes	na	
N: 4660529.33	na	na	na
E: 466614.351			
N: 4661484.97	na	yes	yes
E: 467777.175	na	yes	yes
	na	yes	yes

ClientSampID	DateCollected	AnalysisDate	PrepDate	Reference
LCC @ Bridge #1	5/24/2005	5/27/2005		Std. Meth. 19th Ed.
LCC @ Bridge #1	5/24/2005	5/27/2005		Std. Meth. 19th Ed.
LCC @ Bridge #1	5/24/2005	5/25/2005		Std. Meth. 19th Ed.
LCC @ Bridge #2	5/24/2005	5/27/2005		Std. Meth. 19th Ed.
LCC @ Bridge #3	5/24/2005	5/27/2005		Std. Meth. 19th Ed.
LCC @ Bridge #1	5/24/2005	5/26/2005		EPA 300.0
LCC @ Bridge #1	5/24/2005	5/26/2005		EPA 300.0
LCC @ Bridge #2	5/24/2005	5/26/2005		EPA 300.0
LCC @ Bridge #2	5/24/2005	5/26/2005		EPA 300.0
LCC @ Bridge #3	5/24/2005	5/26/2005		EPA 300.0
LCC @ Bridge #3	5/24/2005	5/26/2005		EPA 300.0
LCC @ Culvert #1	5/24/2005	5/27/2005		Std. Meth. 19th Ed.
LCC @ Culvert #1	5/24/2005	5/27/2005		Std. Meth. 19th Ed.
LCC @ Culvert #1	5/24/2005	5/25/2005		Std. Meth. 19th Ed.
LCC @ Culvert #2	5/24/2005	5/27/2005		Std. Meth. 19th Ed.
LCC @ Culvert #3	5/24/2005	5/27/2005		Std. Meth. 19th Ed.
LCC @ Culvert #1	5/24/2005	5/26/2005		EPA 300.0
LCC @ Culvert #1	5/24/2005	5/26/2005		EPA 300.0
LCC @ Culvert #2	5/24/2005	5/26/2005		EPA 300.0
LCC @ Culvert #2	5/24/2005	5/26/2005		EPA 300.0
LCC @ Culvert #3	5/24/2005	5/26/2005		EPA 300.0
LCC @ Culvert #3	5/24/2005	5/26/2005		EPA 300.0
Marble Spring #1	5/24/2005	5/27/2005		Std. Meth. 19th Ed.
Marble Spring #1	5/24/2005	5/27/2005		Std. Meth. 19th Ed.
Marble Spring #1	5/24/2005	5/25/2005		Std. Meth. 19th Ed.
Marble Spring #2	5/24/2005	5/27/2005		Std. Meth. 19th Ed.
Marble Spring #3	5/24/2005	5/27/2005		Std. Meth. 19th Ed.
Cave Pool Washington #1	5/24/2005	5/27/2005		Std. Meth. 19th Ed.
Cave Pool Washington #1	5/24/2005	5/27/2005		Std. Meth. 19th Ed.
Cave Pool Washington #1	5/24/2005	5/25/2005		Std. Meth. 19th Ed.
Cave Pool Washington #2	5/24/2005	5/27/2005		Std. Meth. 19th Ed.
Cave Pool Washington #3	5/24/2005	5/27/2005		Std. Meth. 19th Ed.
Cave Pool #1	5/24/2005	5/27/2005		Std. Meth. 19th Ed.
Cave Pool #1	5/24/2005	5/27/2005		Std. Meth. 19th Ed.
Cave Pool #1	5/24/2005	5/25/2005		Std. Meth. 19th Ed.
Cave Pool #2	5/24/2005	5/27/2005		Std. Meth. 19th Ed.
Cave Pool #3	5/24/2005	5/27/2005		Std. Meth. 19th Ed.
LCC @ Entrance #1	5/24/2005	5/27/2005		Std. Meth. 19th Ed.
LCC @ Entrance #1	5/24/2005	5/27/2005		Std. Meth. 19th Ed.
LCC @ Entrance #1	5/24/2005	5/25/2005		Std. Meth. 19th Ed.
LCC @ Entrance #2	5/24/2005	5/27/2005		Std. Meth. 19th Ed.
LCC @ Entrance #3	5/24/2005	5/27/2005		Std. Meth. 19th Ed.
Upr Cave Ck #1	5/25/2005	5/27/2005		Std. Meth. 19th Ed.
Upr Cave Ck #1	5/25/2005	5/27/2005		Std. Meth. 19th Ed.
Upr Cave Ck #1	5/25/2005	5/25/2005		Std. Meth. 19th Ed.
Upr Cave Ck #2	5/25/2005	5/27/2005		Std. Meth. 19th Ed.
Upr Cave Ck #3	5/25/2005	5/27/2005		Std. Meth. 19th Ed.
Lake Ck @ Culvert #1	5/25/2005	5/27/2005		Std. Meth. 19th Ed.
Lake Ck @ Culvert #1	5/25/2005	5/27/2005		Std. Meth. 19th Ed.
Lake Ck @ Culvert #1	5/25/2005	5/25/2005		Std. Meth. 19th Ed.

Lake Ck @ Culvert #2	5/25/2005	5/27/2005	Std. Meth. 19th Ed.
Lake Ck @ Culvert #3	5/25/2005	5/27/2005	Std. Meth. 19th Ed.
Lake Ck @ Culvert #1	5/25/2005	5/26/2005	EPA 300.0
Lake Ck @ Culvert #1	5/25/2005	5/26/2005	EPA 300.0
Lake Ck @ Culvert #2	5/25/2005	5/26/2005	EPA 300.0
Lake Ck @ Culvert #2	5/25/2005	5/26/2005	EPA 300.0
Lake Ck @ Culvert #3	5/25/2005	5/26/2005	EPA 300.0
Lake Ck @ Culvert #3	5/25/2005	5/26/2005	EPA 300.0

Analyte	Result	PQL	UNIT
Alkalinity	110	1	mg/L CaCO3
Conductivity	210	1	µmhos/cm
pH	8.0	0	pH Units
Alkalinity	100	1	mg/L CaCO3
Alkalinity	100	1	mg/L CaCO3
Chloride	1.3	0.1	mg/L
Nitrate (as Nitrogen)	ND	0.1	mg/L
Chloride	1.3	0.1	mg/L
Nitrate (as Nitrogen)	ND	0.1	mg/L
Chloride	1.2	0.1	mg/L
Nitrate (as Nitrogen)	ND	0.1	mg/L
Alkalinity	100	1	mg/L CaCO3
Conductivity	200	1	µmhos/cm
pH	7.8	0	pH Units
Alkalinity	100	1	mg/L CaCO3
Alkalinity	100	1	mg/L CaCO3
Chloride	1.1	0.1	mg/L
Nitrate (as Nitrogen)	ND	0.1	mg/L
Chloride	1.1	0.1	mg/L
Nitrate (as Nitrogen)	ND	0.1	mg/L
Chloride	1.1	0.1	mg/L
Nitrate (as Nitrogen)	ND	0.1	mg/L
Alkalinity	100	1	mg/L CaCO3
Conductivity	210	1	µmhos/cm
pH	7.9	0	pH Units
Alkalinity	100	1	mg/L CaCO3
Alkalinity	100	1	mg/L CaCO3
Alkalinity	100	1	mg/L CaCO3
Conductivity	200	1	µmhos/cm
pH	7.9	0	pH Units
Alkalinity	100	1	mg/L CaCO3
Alkalinity	100	1	mg/L CaCO3
Alkalinity	110	1	mg/L CaCO3
Conductivity	220	1	µmhos/cm
pH	7.9	0	pH Units
Alkalinity	110	1	mg/L CaCO3
Alkalinity	110	1	mg/L CaCO3
Alkalinity	96	1	mg/L CaCO3
Conductivity	190	1	µmhos/cm
pH	7.6	0	pH Units
Alkalinity	96	1	mg/L CaCO3
Alkalinity	96	1	mg/L CaCO3
Alkalinity	64	1	mg/L CaCO3
Conductivity	130	1	µmhos/cm
pH	7.8	0	pH Units
Alkalinity	63	1	mg/L CaCO3
Alkalinity	64	1	mg/L CaCO3
Alkalinity	29	1	mg/L CaCO3
Conductivity	34	1	µmhos/cm
pH	7.3	0	pH Units

Alkalinity	30	1	mg/L	CaCO3
Alkalinity	30	1	mg/L	CaCO3
Chloride	0.61	0.1	mg/L	
Nitrate (as Nitrogen)	ND	0.1	mg/L	
Chloride	0.61	0.1	mg/L	
Nitrate (as Nitrogen)	ND	0.1	mg/L	
Chloride	0.61	0.1	mg/L	
Nitrate (as Nitrogen)	ND	0.1	mg/L	

ClientSampID	DateCollected	AnalysisDate	PrepDate	Reference
lower cave creek @ entrance 1	5/25/2005	5/25/2005		Std. Meth. 19th Ed.
lower cave crk @ entrance 1	5/25/2005	5/25/2005		Std. Meth. 19th Ed.
lower cave crk @ entrance 2	5/25/2005	5/25/2005		Std. Meth. 19th Ed.
lcc @ entrance 2	5/25/2005	5/25/2005		Std. Meth. 19th Ed.
lower cave crk @ entrance 3	5/25/2005	5/25/2005		Std. Meth. 19th Ed.
lcc @ entrance 3	5/25/2005	5/25/2005		Std. Meth. 19th Ed.
lower cave crk @ Bridge 1	5/25/2005	5/25/2005		Std. Meth. 19th Ed.
lcc @ B 1	5/25/2005	5/25/2005		Std. Meth. 19th Ed.
lwr cave ck. @ bridge 2	5/25/2005	5/25/2005		Std. Meth. 19th Ed.
lwr cave ck. @ bridge 2	5/25/2005	5/25/2005		Std. Meth. 19th Ed.
lower cave crk @ Bridge 3	5/25/2005	5/25/2005		Std. Meth. 19th Ed.
lower cave creek @ Bridge 3	5/25/2005	5/25/2005		Std. Meth. 19th Ed.

Analyte	Result	PQL		UNIT
Fecal Coliform	<2		2	MPN/100mL
Total Coliform	<2		2	MPN/100mL
Fecal Coliform	<2		2	MPN/100mL
Total Coliform	<2		2	MPN/100mL
Fecal Coliform	<2		2	MPN/100mL
Total Coliform	2		2	MPN/100mL
Fecal Coliform	4		2	MPN/100mL
Total Coliform	4		2	MPN/100mL
Fecal Coliform	2		2	MPN/100mL
Total Coliform	8		2	MPN/100mL
Fecal Coliform		4	2	MPN/100mL
Total Coliform	27		2	MPN/100mL

ClientSampID	DateCollected	AnalysisDate	PrepDate	Reference	Analyte
Lwr Cave Ck @ culvert-1	10/12/2005	10/13/2005		EPA 300.0	Chloride
Lwr Cave Ck @ culvert-1	10/12/2005	10/13/2005		EPA 300.0	Nitrate (as
Lwr Cave Ck @ culvert-2	10/12/2005	10/13/2005		EPA 300.0	Chloride
Lwr Cave Ck @ culvert-2	10/12/2005	10/13/2005		EPA 300.0	Nitrate (as
Lwr Cave Ck @ culvert-3	10/12/2005	10/13/2005		EPA 300.0	Chloride
Lwr Cave Ck @ culvert-3	10/12/2005	10/13/2005		EPA 300.0	Nitrate (as
Cave Pool #2-1	10/12/2005	10/24/2005		Std. Meth. 19th Ed.	Alkalinity
Cave Pool #2-1	10/12/2005	10/26/2005		Std. Meth. 19th Ed.	Bicarbonat
Cave Pool #2-1	10/12/2005	10/26/2005		Std. Meth. 19th Ed.	Carbonate
Cave Pool #2-1	10/12/2005	10/26/2005		Std. Meth. 19th Ed.	Hydroxide
Cave Pool #2-1	10/12/2005	10/13/2005		Std. Meth. 19th Ed.	pH
Cave Pool #2-2	10/12/2005	10/24/2005		Std. Meth. 19th Ed.	Alkalinity
Cave Pool #2-2	10/12/2005	10/26/2005		Std. Meth. 19th Ed.	Bicarbonat
Cave Pool #2-2	10/12/2005	10/26/2005		Std. Meth. 19th Ed.	Carbonate
Cave Pool #2-2	10/12/2005	10/26/2005		Std. Meth. 19th Ed.	Hydroxide
Cave Pool #2-2	10/12/2005	10/13/2005		Std. Meth. 19th Ed.	pH
Cave Pool #2-3	10/12/2005	10/24/2005		Std. Meth. 19th Ed.	Alkalinity
Cave Pool #2-3	10/12/2005	10/26/2005		Std. Meth. 19th Ed.	Bicarbonat
Cave Pool #2-3	10/12/2005	10/26/2005		Std. Meth. 19th Ed.	Carbonate
Cave Pool #2-3	10/12/2005	10/26/2005		Std. Meth. 19th Ed.	Hydroxide
Cave Pool #2-3	10/12/2005	10/13/2005		Std. Meth. 19th Ed.	pH
Wash Monument-1	10/12/2005	10/24/2005		Std. Meth. 19th Ed.	Alkalinity
Wash Monument-1	10/12/2005	10/26/2005		Std. Meth. 19th Ed.	Bicarbonat
Wash Monument-1	10/12/2005	10/26/2005		Std. Meth. 19th Ed.	Carbonate
Wash Monument-1	10/12/2005	10/26/2005		Std. Meth. 19th Ed.	Hydroxide
Wash Monument-1	10/12/2005	10/13/2005		Std. Meth. 19th Ed.	pH
Wash Monument-2	10/12/2005	10/24/2005		Std. Meth. 19th Ed.	Alkalinity
Wash Monument-2	10/12/2005	10/26/2005		Std. Meth. 19th Ed.	Bicarbonat
Wash Monument-2	10/12/2005	10/26/2005		Std. Meth. 19th Ed.	Carbonate
Wash Monument-2	10/12/2005	10/26/2005		Std. Meth. 19th Ed.	Hydroxide
Wash Monument-2	10/12/2005	10/13/2005		Std. Meth. 19th Ed.	pH
Wash Monument-3	10/12/2005	10/24/2005		Std. Meth. 19th Ed.	Alkalinity
Wash Monument-3	10/12/2005	10/26/2005		Std. Meth. 19th Ed.	Bicarbonat
Wash Monument-3	10/12/2005	10/26/2005		Std. Meth. 19th Ed.	Carbonate
Wash Monument-3	10/12/2005	10/26/2005		Std. Meth. 19th Ed.	Hydroxide
Wash Monument-3	10/12/2005	10/13/2005		Std. Meth. 19th Ed.	pH
Lwr Cave Ck @ entrance-1	10/12/2005	10/24/2005		Std. Meth. 19th Ed.	Alkalinity
Lwr Cave Ck @ entrance-1	10/12/2005	10/26/2005		Std. Meth. 19th Ed.	Bicarbonat
Lwr Cave Ck @ entrance-1	10/12/2005	10/26/2005		Std. Meth. 19th Ed.	Carbonate
Lwr Cave Ck @ entrance-1	10/12/2005	10/26/2005		Std. Meth. 19th Ed.	Hydroxide
Lwr Cave Ck @ entrance-1	10/12/2005	10/13/2005		Std. Meth. 19th Ed.	pH
Lwr Cave Ck @ entrance-2	10/12/2005	10/24/2005		Std. Meth. 19th Ed.	Alkalinity
Lwr Cave Ck @ entrance-2	10/12/2005	10/26/2005		Std. Meth. 19th Ed.	Bicarbonat
Lwr Cave Ck @ entrance-2	10/12/2005	10/26/2005		Std. Meth. 19th Ed.	Carbonate
Lwr Cave Ck @ entrance-2	10/12/2005	10/26/2005		Std. Meth. 19th Ed.	Hydroxide
Lwr Cave Ck @ entrance-2	10/12/2005	10/13/2005		Std. Meth. 19th Ed.	pH
Lwr Cave Ck @ entrance-3	10/12/2005	10/24/2005		Std. Meth. 19th Ed.	Alkalinity
Lwr Cave Ck @ entrance-3	10/12/2005	10/26/2005		Std. Meth. 19th Ed.	Bicarbonat
Lwr Cave Ck @ entrance-3	10/12/2005	10/26/2005		Std. Meth. 19th Ed.	Carbonate
Lwr Cave Ck @ entrance-3	10/12/2005	10/26/2005		Std. Meth. 19th Ed.	Hydroxide

Lwr Cave Ck @ entrance-3	10/12/2005	10/13/2005	Std. Meth. 19th Ed.	pH
Lwr Cave Ck @ bridge-1	10/12/2005	10/24/2005	Std. Meth. 19th Ed.	Alkalinity
Lwr Cave Ck @ bridge-1	10/12/2005	10/26/2005	Std. Meth. 19th Ed.	Bicarbonat
Lwr Cave Ck @ bridge-1	10/12/2005	10/26/2005	Std. Meth. 19th Ed.	Carbonate
Lwr Cave Ck @ bridge-1	10/12/2005	10/26/2005	Std. Meth. 19th Ed.	Hydroxide
Lwr Cave Ck @ bridge-1	10/12/2005	10/13/2005	Std. Meth. 19th Ed.	pH
Lwr Cave Ck @ bridge-2	10/12/2005	10/24/2005	Std. Meth. 19th Ed.	Alkalinity
Lwr Cave Ck @ bridge-2	10/12/2005	10/26/2005	Std. Meth. 19th Ed.	Bicarbonat
Lwr Cave Ck @ bridge-2	10/12/2005	10/26/2005	Std. Meth. 19th Ed.	Carbonate
Lwr Cave Ck @ bridge-2	10/12/2005	10/26/2005	Std. Meth. 19th Ed.	Hydroxide
Lwr Cave Ck @ bridge-2	10/12/2005	10/13/2005	Std. Meth. 19th Ed.	pH
Lwr Cave Ck @ bridge-3	10/12/2005	10/24/2005	Std. Meth. 19th Ed.	Alkalinity
Lwr Cave Ck @ bridge-3	10/12/2005	10/26/2005	Std. Meth. 19th Ed.	Bicarbonat
Lwr Cave Ck @ bridge-3	10/12/2005	10/26/2005	Std. Meth. 19th Ed.	Carbonate
Lwr Cave Ck @ bridge-3	10/12/2005	10/26/2005	Std. Meth. 19th Ed.	Hydroxide
Lwr Cave Ck @ bridge-3	10/12/2005	10/13/2005	Std. Meth. 19th Ed.	pH
Marble Springs-1	10/12/2005	10/24/2005	Std. Meth. 19th Ed.	Alkalinity
Marble Springs-1	10/12/2005	10/26/2005	Std. Meth. 19th Ed.	Bicarbonat
Marble Springs-1	10/12/2005	10/26/2005	Std. Meth. 19th Ed.	Carbonate
Marble Springs-1	10/12/2005	10/26/2005	Std. Meth. 19th Ed.	Hydroxide
Marble Springs-1	10/12/2005	10/13/2005	Std. Meth. 19th Ed.	pH
Marble Springs-2	10/12/2005	10/24/2005	Std. Meth. 19th Ed.	Alkalinity
Marble Springs-2	10/12/2005	10/26/2005	Std. Meth. 19th Ed.	Bicarbonat
Marble Springs-2	10/12/2005	10/26/2005	Std. Meth. 19th Ed.	Carbonate
Marble Springs-2	10/12/2005	10/26/2005	Std. Meth. 19th Ed.	Hydroxide
Marble Springs-2	10/12/2005	10/13/2005	Std. Meth. 19th Ed.	pH
Marble Springs-3	10/12/2005	10/24/2005	Std. Meth. 19th Ed.	Alkalinity
Marble Springs-3	10/12/2005	10/26/2005	Std. Meth. 19th Ed.	Bicarbonat
Marble Springs-3	10/12/2005	10/26/2005	Std. Meth. 19th Ed.	Carbonate
Marble Springs-3	10/12/2005	10/26/2005	Std. Meth. 19th Ed.	Hydroxide
Marble Springs-3	10/12/2005	10/13/2005	Std. Meth. 19th Ed.	pH
Lwr Cave Ck @ culvert-1	10/12/2005	10/24/2005	Std. Meth. 19th Ed.	Alkalinity
Lwr Cave Ck @ culvert-1	10/12/2005	10/26/2005	Std. Meth. 19th Ed.	Bicarbonat
Lwr Cave Ck @ culvert-1	10/12/2005	10/26/2005	Std. Meth. 19th Ed.	Carbonate
Lwr Cave Ck @ culvert-1	10/12/2005	10/26/2005	Std. Meth. 19th Ed.	Hydroxide
Lwr Cave Ck @ culvert-1	10/12/2005	10/13/2005	Std. Meth. 19th Ed.	pH
Lwr Cave Ck @ culvert-2	10/12/2005	10/24/2005	Std. Meth. 19th Ed.	Alkalinity
Lwr Cave Ck @ culvert-2	10/12/2005	10/26/2005	Std. Meth. 19th Ed.	Bicarbonat
Lwr Cave Ck @ culvert-2	10/12/2005	10/26/2005	Std. Meth. 19th Ed.	Carbonate
Lwr Cave Ck @ culvert-2	10/12/2005	10/26/2005	Std. Meth. 19th Ed.	Hydroxide
Lwr Cave Ck @ culvert-2	10/12/2005	10/13/2005	Std. Meth. 19th Ed.	pH
Lwr Cave Ck @ culvert-3	10/12/2005	10/24/2005	Std. Meth. 19th Ed.	Alkalinity
Lwr Cave Ck @ culvert-3	10/12/2005	10/26/2005	Std. Meth. 19th Ed.	Bicarbonat
Lwr Cave Ck @ culvert-3	10/12/2005	10/26/2005	Std. Meth. 19th Ed.	Carbonate
Lwr Cave Ck @ culvert-3	10/12/2005	10/26/2005	Std. Meth. 19th Ed.	Hydroxide
Lwr Cave Ck @ culvert-3	10/12/2005	10/13/2005	Std. Meth. 19th Ed.	pH
Lake Ck-1	10/13/2005	10/24/2005	Std. Meth. 19th Ed.	Alkalinity
Lake Ck-1	10/13/2005	10/26/2005	Std. Meth. 19th Ed.	Bicarbonat
Lake Ck-1	10/13/2005	10/26/2005	Std. Meth. 19th Ed.	Carbonate
Lake Ck-1	10/13/2005	10/26/2005	Std. Meth. 19th Ed.	Hydroxide
Lake Ck-1	10/13/2005	10/13/2005	Std. Meth. 19th Ed.	pH

Lake Ck-2	10/13/2005	10/24/2005	Std. Meth. 19th Ed.	Alkalinity
Lake Ck-2	10/13/2005	10/26/2005	Std. Meth. 19th Ed.	Bicarbonat
Lake Ck-2	10/13/2005	10/26/2005	Std. Meth. 19th Ed.	Carbonate
Lake Ck-2	10/13/2005	10/26/2005	Std. Meth. 19th Ed.	Hydroxide
Lake Ck-2	10/13/2005	10/13/2005	Std. Meth. 19th Ed.	pH
Lake Ck-3	10/13/2005	10/24/2005	Std. Meth. 19th Ed.	Alkalinity
Lake Ck-3	10/13/2005	10/26/2005	Std. Meth. 19th Ed.	Bicarbonat
Lake Ck-3	10/13/2005	10/26/2005	Std. Meth. 19th Ed.	Carbonate
Lake Ck-3	10/13/2005	10/26/2005	Std. Meth. 19th Ed.	Hydroxide
Lake Ck-3	10/13/2005	10/13/2005	Std. Meth. 19th Ed.	pH
Lwr Cave Ck @ bridge-2	10/12/2005	10/13/2005	EPA 300.0	Nitrate (as
Lwr Cave Ck @ bridge-2	10/12/2005	10/13/2005	EPA 300.0	Chloride
Lwr Cave Ck @ bridge-3	10/12/2005	10/13/2005	EPA 300.0	Nitrate (as
Lwr Cave Ck @ bridge-3	10/12/2005	10/13/2005	EPA 300.0	Chloride
Lake Ck-1	10/13/2005	10/14/2005	EPA 300.0	Nitrate (as
Lake Ck-1	10/13/2005	10/14/2005	EPA 300.0	Chloride
Lwr Cave Ck @ bridge-1	10/12/2005	10/13/2005	EPA 300.0	Nitrate (as
Lwr Cave Ck @ bridge-1	10/12/2005	10/13/2005	EPA 300.0	Chloride
Lake Ck-2	10/13/2005	10/14/2005	EPA 300.0	Nitrate (as
Lake Ck-2	10/13/2005	10/14/2005	EPA 300.0	Chloride
Lake Ck-3	10/13/2005	10/14/2005	EPA 300.0	Nitrate (as
Lake Ck-3	10/13/2005	10/14/2005	EPA 300.0	Chloride

Result	PQL	UNIT
1.1	0.1	mg/L
ND	0.1	mg/L
1.1	0.1	mg/L
ND	0.1	mg/L
1.2	0.1	mg/L
ND	0.1	mg/L
110	1	mg/L CaCO3
110	1	mg/L CaCO3
ND	1	mg/L CaCO3
ND	1	mg/L CaCO3
7.6	0	pH Units
110	1	mg/L CaCO3
110	1	mg/L CaCO3
ND	1	mg/L CaCO3
ND	1	mg/L CaCO3
7.6	0	pH Units
110	1	mg/L CaCO3
110	1	mg/L CaCO3
ND	1	mg/L CaCO3
ND	1	mg/L CaCO3
7.7	0	pH Units
110	1	mg/L CaCO3
110	1	mg/L CaCO3
ND	1	mg/L CaCO3
ND	1	mg/L CaCO3
7.8	0	pH Units
110	1	mg/L CaCO3
110	1	mg/L CaCO3
ND	1	mg/L CaCO3
ND	1	mg/L CaCO3
7.8	0	pH Units
110	1	mg/L CaCO3
110	1	mg/L CaCO3
ND	1	mg/L CaCO3
ND	1	mg/L CaCO3
7.8	0	pH Units
120	1	mg/L CaCO3
120	1	mg/L CaCO3
ND	1	mg/L CaCO3
ND	1	mg/L CaCO3
7.7	0	pH Units
110	1	mg/L CaCO3
110	1	mg/L CaCO3
ND	1	mg/L CaCO3
ND	1	mg/L CaCO3
7.7	0	pH Units
110	1	mg/L CaCO3
110	1	mg/L CaCO3
ND	1	mg/L CaCO3
ND	1	mg/L CaCO3

7.7	0	pH Units
120	1	mg/L CaCO3
120	1	mg/L CaCO3
1.1	1	mg/L CaCO3
ND	1	mg/L CaCO3
8.0	0	pH Units
120	1	mg/L CaCO3
120	1	mg/L CaCO3
1.1	1	mg/L CaCO3
ND	1	mg/L CaCO3
8.0	0	pH Units
120	1	mg/L CaCO3
120	1	mg/L CaCO3
1.1	1	mg/L CaCO3
ND	1	mg/L CaCO3
8.0	0	pH Units
120	1	mg/L CaCO3
120	1	mg/L CaCO3
1.4	1	mg/L CaCO3
ND	1	mg/L CaCO3
8.1	0	pH Units
120	1	mg/L CaCO3
120	1	mg/L CaCO3
1.1	1	mg/L CaCO3
ND	1	mg/L CaCO3
8.0	0	pH Units
120	1	mg/L CaCO3
120	1	mg/L CaCO3
1.1	1	mg/L CaCO3
ND	1	mg/L CaCO3
8.0	0	pH Units
120	1	mg/L CaCO3
120	1	mg/L CaCO3
1.1	1	mg/L CaCO3
ND	1	mg/L CaCO3
8.0	0	pH Units
120	1	mg/L CaCO3
120	1	mg/L CaCO3
1.1	1	mg/L CaCO3
ND	1	mg/L CaCO3
8.0	0	pH Units
120	1	mg/L CaCO3
120	1	mg/L CaCO3
1.1	1	mg/L CaCO3
ND	1	mg/L CaCO3
8.0	0	pH Units
48	1	mg/L CaCO3
48	1	mg/L CaCO3
ND	1	mg/L CaCO3
ND	1	mg/L CaCO3
7.8	0	pH Units

48	1	mg/L CaCO3
48	1	mg/L CaCO3
ND	1	mg/L CaCO3
ND	1	mg/L CaCO3
7.8	0	pH Units
50	1	mg/L CaCO3
50	1	mg/L CaCO3
ND	1	mg/L CaCO3
ND	1	mg/L CaCO3
7.7	0	pH Units
0.11	0.1	mg/L
1.5	0.1	mg/L
0.11	0.1	mg/L
1.5	0.1	mg/L
ND	0.1	mg/L
0.89	0.1	mg/L
0.11	0.1	mg/L
1.5	0.1	mg/L
ND	0.1	mg/L
0.89	0.1	mg/L
ND	0.1	mg/L
0.89	0.1	mg/L

ClientSampID	DateCollected	AnalysisDate	PrepDate	Reference
lower cave ck @ bridge # 3	10/13/2005	10/13/2005		Std. Meth. 19th Ed.
lwr cave ck @ bridge # 3	10/13/2005	10/13/2005		Std. Meth. 19th Ed.
lwr cave ck. @ bridge # 2	10/13/2005	10/13/2005		Std. Meth. 19th Ed.
lwr cave ck. @ bridge # 2	10/13/2005	10/13/2005		Std. Meth. 19th Ed.
lwr cave ck. @ bridge # 1	10/13/2005	10/13/2005		Std. Meth. 19th Ed.
lwr cave ck. @ bridge # 1	10/13/2005	10/13/2005		Std. Meth. 19th Ed.
lower cave ck. @ entrance #3	10/13/2005	10/13/2005		Std. Meth. 19th Ed.
lwr cave ck. @ entrance #3	10/13/2005	10/13/2005		Std. Meth. 19th Ed.
lwr cave ck @ entrance # 2	10/13/2005	10/13/2005		Std. Meth. 19th Ed.
lwr cave ck @ entrance #2	10/13/2005	10/13/2005		Std. Meth. 19th Ed.
lwr cave ck. @ entrance # 1	10/13/2005	10/13/2005		Std. Meth. 19th Ed.
lwr cave ck. @ entrance # 1	10/13/2005	10/13/2005		Std. Meth. 19th Ed.

Analyte	Result	PQL		UNIT
Fecal Coliform	4		2	MPN/100mL
Total Coliform	14		2	MPN/100mL
Fecal Coliform	4		2	MPN/100mL
Total Coliform	11		2	MPN/100mL
Fecal Coliform	8		2	MPN/100mL
Total Coliform	17		2	MPN/100mL
Fecal Coliform	<2		2	MPN/100mL
Total Coliform	<2		2	MPN/100mL
Fecal Coliform	<2		2	MPN/100mL
Total Coliform	2		2	MPN/100mL
Fecal Coliform	<2		2	MPN/100mL
Total Coliform	<2		2	MPN/100mL